

## Daniel J. McEvoy

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### Professional Interests

Interdisciplinary research in climate, hydrology, and meteorology; hydroclimatolgy research and data applications in the western US with a focus on drought monitoring, climate-wildfire connections, and subseasonal-to-seasonal prediction.

### Graduate and Professional Experience

2022-present	Associate Research Professor, Climatology, Desert Research Institute, Regional Climatologist, Western Regional Climate Center, Reno, NV
2017-2022	Assistant Research Professor, Climatology, Desert Research Institute, Regional Climatologist, Western Regional Climate Center, Reno, NV
2015-2017	Postdoctoral Fellow in Applied Climatology, Western Regional Climate Center/Desert Research Institute, Reno, NV
2010 - 2015	Graduate Research Assistant, Desert Research Institute, Reno, NV, Advisor: John Mejia
2007 - 2009	Environmental Scientist, CDM Smith, Truckee, CA

### Education

2015	Ph.D., Atmospheric Science, University of Nevada, Reno, NV Dissertation: <i>"Physically Based Evaporative Demand as a Drought Metric: Historical Analysis and Seasonal Prediction"</i>
2012	M.S., Atmospheric Science, University of Nevada, Reno, NV Thesis: <i>"An Evaluation of Multi-scalar Drought Indices in Nevada and Eastern California"</i>
2005	B.S., Environmental Science, Plattsburgh State University of New York, Plattsburgh, NY

### Awards

- 2021 Nevada System of Higher Education Board of Regents: **Rising Researcher Award**

- 2018 American Meteorological Society: **Editors Award, Journal of Hydrometeorology** for timely, insightful, detailed, and rigorous reviews that improved several manuscripts focusing on drought.

### **Peer Reviewed Publications**

**McEvoy, D. J., & Hatchett, B. J.** (2023). Spring heat waves drive record western United States snow melt in 2021. *Environmental Research Letters*, **18(1)**, 014007. DOI 10.1088/1748-9326/aca8bd.

Walston, J. M., McAfee, S. A., & **McEvoy, D. J.** (2023). Evaluating Drought Indices for Alaska. *Earth Interactions*. <https://doi.org/10.1175/EI-D-22-0025.1>.

Abatzoglou, J. T., **McEvoy, D. J.**, Nauslar, N. J., Hegewisch, K. C., & Huntington, J. L. (2023). Downscaled subseasonal fire danger forecast skill across the contiguous United States. *Atmospheric Science Letters*, e1165.

Hatchett, B. J., A. M. Rhoades, and **D. J. McEvoy** (2022): Decline in Seasonal Snow during a Projected 20-year Dry Spell, *Hydrology*, **9**, 155. <https://doi.org/10.3390/hydrology9090155>.

**McEvoy, D.J.**, S. Roj, C. Dunkerly, D. McGraw, J. Huntington, M. Hobbins, T. Ott (2022): Validation and Bias Correction of Forecast Reference Evapotranspiration for Agricultural Applications in Nevada, USA, *Journal of Water Resources Planning and Management*. DOI: 10.1061/(ASCE)WR.1943-5452.0001595.

Hatchett, B. J., A. M. Rhoades, and **D. J. McEvoy** (2022): Monitoring the Daily Evolution and Extent of Snow Drought, *Nat. Hazards Earth Syst. Sci. Discuss.* <https://doi.org/10.5194/nhess-2021-193>.

Albano, C.M., J.T. Abatzoglou, **D.J. McEvoy**, J.L. Huntington, C.G. Morton, M.D. Dettinger, T.J. Ott (2022): A multi-dataset assessment of climatic drivers and uncertainties of recent trends in evaporative demand across the continental US. *Journal of Hydrometeorology*, <https://doi.org/10.1175/JHM-D-21-0163.1>.

Potter, B., **D.J. McEvoy** (2021): Weather Factors Associated with Extremely Large Fires and Fire Growth Days. *Earth Interactions*, **25**, 160-176, <https://doi.org/10.1175/EI-D-21-0008.1>

McCullum, A.J.K., McClellan, C., Daudert, B., Huntington, J., Green, R., Ly, V., Marley, A.R.G., Tulley, N.R., Morton, C., Hegewisch, K., C., Abatzoglou, J.T., **McEvoy, D. J.** (2021). Satellite-Based Drought Reporting on the Navajo Nation. *Journal of the American Water Resources Association*, **1-17**, <https://doi.org/10.1111/1752-1688.12909>.

Bhatt, U. S., Lader, R. T., Walsh, J. E., Bieniek, P. A., Thoman, R., Berman, M., ... & Ziel, R. (2021). Emerging Anthropogenic Influences on the Southcentral Alaska Temperature and Precipitation Extremes and Related Fires in 2019. *Land*, **10(1)**, 82.

**McEvoy, D. J.**, Pierce, D. W., Kalansky, J. F., Cayan, D. R., & Abatzoglou, J. T. (2020). Projected Changes in Reference Evapotranspiration in California and Nevada: Implications for Drought and Wildland Fire Danger. *Earth's Future*, **8(11)**, e2020EF001736.

Albano, C. M., McGwire, K. C., Hausner, M. B., **McEvoy, D. J.**, Morton, C. G., Huntington, J. L. (2020). Drought Sensitivity and Trends in Riparian Vegetation Vigor in Nevada, USA (1985-2018), *Remote Sensing*, **12**, 1362, 10.3390/rs12091362

- Williams, E., C. Funk, S. Shukla, **D. McEvoy**, 2019: Quantifying Human-Induced Temperature Impacts on the 2018 United States Four Corners Hydrologic and Agro-Pastoral Drought [in "Explaining Extremes of 2018 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.* DOI:10.1175/BAMS-D-19-0187.1
- Nauslar, N., T. Brown, **D.J. McEvoy**, N. Lareau, 2019: Record Setting 2018 California Wildfires [in "State of the Climate in 2018"], *Bulletin of the American Meteorological Society*, 100 (9), S195-S196, doi:10.1175/2019BAMSStateoftheClimate.1.
- Dorman, C., J. Mejia, D. Koracin, and **D.J. McEvoy**, 2019: Worldwide Marine Fog Based on 58-years of Ship Observations. *International Journal of Climatology*.  
<https://doi.org/10.1002/joc.6200>.
- McEvoy, D.J.**, M. Hobbins, T. Brown, K. VanderMolen, T. Wall, J. Huntington, and M. Svoboda, 2019: Establishing Relationships between Drought Indices and Wildfire Danger Outputs: A Test Case for the California-Nevada Drought Early Warning System, *Climate* **7 (4)**,  
<https://doi.org/10.3390/cli7040052>.
- Hausner, M. B., J. L. Huntington, C. Nash, C. G. Morton, **D.J. McEvoy**, D. S. Pilliod, K. Hegewisch, B. Daudert, J. T. Abatzoglou, and G. Grant, 2018: Assessing the effectiveness of riparian restoration projects using Landsat and precipitation data from the cloud-computing application ClimateEngine.org, *Ecological Engineering*, **120**, 432-440,  
<https://doi.org/10.1016/j.ecoleng.2018.06.024>
- Hatchett, B., and **D.J. McEvoy**, 2018: Exploring the Origins of Snow Drought in the Northern Sierra Nevada, *Earth Interactions*, **22 (2)**, 1-13, <https://doi.org/10.1175/EI-D-17-0027.1>
- Shukla, S., **D.J. McEvoy**, M. Hobbins, G. Husak, J. Huntington, C. Funk, D. Macharia, and J. Verdin, 2017: Examining the Value of Seasonal Reference Evapotranspiration Forecasts to Support FEWS NET's Food Security Outlooks, *J. Appl. Meteor. Climatol.*, **56**, 2941-2949,  
<https://doi.org/10.1175/JAMC-D-17-0104.1>
- McGwire, K., M. Weltz, K. Snyder, J. Huntington, C. Morton, **D. McEvoy**, and S. Peterson, 2017: Satellite Assessment of Early Season Forecasts for Vegetation Conditions of Grazing Allotments in Nevada, *Rangeland Ecol. Manag.*, **70 (6)**, 730-739,  
[doi.org/10.1016/j.rama.2017.06.005](https://doi.org/10.1016/j.rama.2017.06.005)
- Abatzoglou, J. T., **D. J. McEvoy**, and K. T. Redmond, 2017: The West Wide Drought Tracker: Drought Monitoring at Fine Spatial Scales. *Bull. Amer. Meteor. Soc.*, **98 (9)**, 1815-1820,  
[doi:10.1175/BAMS-D-16-0193.1](https://doi.org/10.1175/BAMS-D-16-0193.1)
- Huntington, J. L., K. Hegewisch, B. Daudert, C. Morton, J. Abatzoglou, **D. J. McEvoy**, and T. Erickson, 2017: Climate Engine: Cloud Computing and Visualization of Climate and Remote Sensing Data for Enhanced Natural Resource Monitoring and Process Understanding. *Bull. Amer. Meteor. Soc.*, **98 (11)**, 2397-2409, doi:10.1175/BAMS-D-15- 00324.1
- Hobbins, M., A. Wood, **D.J. McEvoy**, J. Huntington, and C. Morton, James Verdin, Martha Anderson, and Christopher Hain, 2016: The Evaporative Demand Drought Index: Part I – Linking Drought Evolution to Variations in Evaporative Demand. *Journal of Hydrometeorology*. **17**, 1745-1761, doi: 10.1175/JHM-D-15-0121.1
- McEvoy, D.J.**, J.L. Huntington, M. Hobbins, A. Wood, and C. Morton, James Verdin, Martha Anderson, and Christopher Hain, 2016: The Evaporative Demand Drought Index: Part II – CONUS-wide Assessment Against Common Drought Indicators. *Journal of Hydrometeorology*. **17**, 1763-1779, doi: 10.1175/JHM-D-15-0122.1.

- McEvoy, D. J.**, J. L. Huntington, J. F. Mejia, and M. T. Hobbins, 2016: Improved Seasonal Drought Forecasts using Reference Evapotranspiration Anomalies. *Geophysical Research Letters*, **43**, 377-385, doi: 10.1002/2015GL067009.
- McEvoy, D.J.**, J. Mejia, and J.L., Huntington, 2014: Use of an Observation Network in the Great Basin to Evaluate Gridded Climate Data. *Journal of Hydrometeorology*, **15**, 1913-1931, doi:10.1175/JHM-D-14-0015.1
- McEvoy, D.J.**, J.L. Huntington, J. Abatzoglou, L. Edwards, 2012: An Evaluation of Multi-scalar Drought Indices in Nevada and Eastern California. *Earth Interactions*, **16**, 1-18.

### **Book Chapters**

- Dorman, C., D. Koracin, J.F. Mejia, and **D.J. McEvoy**, 2017: World Marine Fog Occurrence. In *Marine Fog: Challenges and Advancements in Observations, Modeling and Forecasting*, D. Koracin and C. Dorman (Eds.), Springer International Publishing. [Available at: <http://www.springer.com/us/book/9783319452272>]
- Hobbins M.T, **D. J., McEvoy**, and C. Hain, 2017: Chapter 11: Evapotranspiration, Evaporative Demand, and Drought, In: *Drought and Water Crises: Science, Technology and Management Issues*, edited by D Wilhite and R Pulwarty, CRC Press.

### **Funded Proposals**

- McEvoy, D.**, B. Hatchett, T. Wall (2021). National Weather Service. Development of a high-resolution downslope wind climatology in the Western US to provide operational support of wildfire danger forecasting and communication. **\$149,551 (2022-2024)**.
- Brown T., T. Wall, **D. McEvoy** (2021). National Oceanic and Atmospheric Administration. Unsolicited Proposal. National Integrated Drought Information System Drought and Wildfire Nexus (NDAWN). **\$310,000 (2021-2022)**.
- Huntington, J., **D. McEvoy**, C. Morton, B. Daudert, J. Hansen (2020). University Corporation for Atmospheric Research. Climate Adaptation and Mitigation Program (CAMP) Continuation. **\$489,999 (2021-2022)**.
- Wall, T., **D. McEvoy**, B. Hatchett, M. McCarthy, C. Albano (2020). UC San Diego. Unsolicited Proposal. Exploring Sub-annual Variability in a Changing Climate Including Extremes. **\$202,499 (2020-2021)**
- McEvoy, D.**, B. Hatchett, J. Chambers (2020). NOAA National Weather Service. NWS Snow Drought Tracker Research to Operations. **\$59,999 (2020-2021)**.
- Huntington, J., **D. McEvoy (2019)**. National Oceanic and Atmospheric Administration. Unsolicited Proposal. Expansion of DEWS Activities Through the Development of New Technologies to Improve Processing Speeds, Access and Visualization of Drought Metrics, Impacts, and Forecasts. **\$101,742 (2019-2020)**.
- McEvoy, D.** (2019). NASA Roses SERVIR. Connecting West Africa users to cutting edge resources: Integrating satellite observations and sub-seasonal climate forecasts to enhance agricultural and pastoral water-management decision-making using 21st century agro-pastoral water deficit predictions. **\$73,950 (2019-2022)**.

- McEvoy, D.**, M. Hobbins, I. Rangwala, H. Yocum, and A. DeGaetano (2019). NOAA SARP. Identifying and quantifying triggers, time scales, and tools to support management of different drought types in the Northeastern United States. **\$199,090 (2019-2020)**.
- McEvoy, D.**, B. Hatchett, J. Chambers (2018). DRI IRP. Development of Real Time Snow Drought Tracking Tools for Large River Basins in the Western United States. **\$34,791 (2018-2019)**.
- Huntington, J.L., Morton, C., and **D. McEvoy** (2017). USGS Landsat Science Team. Solicited Proposal - Towards the Development and Integration of Landsat Evapotranspiration Ensembles and Climate Data for Enhanced Water and Land Management Decision Support. **\$1,255,132 (2018-2023)**.
- Wall, T., T. Brown, N. Oakley, J. Huntington, **D. McEvoy**, K. Vandermolten, A. Horangic, N. Nauslar (2017). NOAA RISA. California Nevada Climate Applications Program. **\$1,126,025 (2017-2022)**.
- McEvoy, D.**, N. Oakley (2017). California Department of Water Resources. Unsolicited Proposal – California Climate Tracker Update. **\$44,713 (2017-2018)**.
- K. Hoekman, D. McEvoy, D. Simeral (2017). Coordinating Research Council. Comparison of Ambient Temperatures from ‘Doner Report’ to Modern Day Ambient Temperatures for the Same Geographic Areas. \$79,402 (2017-2018).
- McEvoy, D.**, and J.L. Huntington (2016). NOAA Research Transition Acceleration Program. Solicited Proposal – Operationalizing and Evaporative Demand Drought Index (EDDI) Service for Drought Monitoring and Early Warning. **\$418,047 (2016- 2019)**.
- Huntington, J.L., **McEvoy, D.**, Morton, C., Daudert, B., Wall., T., and D. Simeral. (2016). National Oceanic and Atmospheric Administration. Unsolicited Proposal - Development of a Nevada Drought Early Warning System, **\$840,000 (2016-2019)**.
- McEvoy, D.**, T. Brown, T. Wall, M. Hobbins, M. Svoboda (2016). NOAA SARP. Developing a wildfire component for the NIDIS California Drought Early Warning System. **\$294,295 (2016-2018)**.

### Technical Reports

- Hoekman, S.K., **McEvoy, D. J.**, Simeral, D. B., Fremereau, P. G., 2018: Comparison of Ambient Temperatures from 'Donor Report' to Modern Day Ambient Temperature for the Same Geographic Areas, CRC Report - CM-138-16-2, *Coordinating Research Council*: Alpharetta, GA
- McEvoy, D. J.** and G. McCurdy, 2018: Washoe County Rain Gauge Network: Historical Analysis and Comparison to PRISM, *Final Report submitted to the Western Regional Water Commission*.
- Huntington, J.L., C. G. Morton, **D. J. McEvoy**, M. Bromley, K. Hedgewisch, R. Allen, and S. Gangopadhyay, 2016: Historical and Future Irrigation Water Requirements for Select Reclamation Project Areas, Western U.S., *U.S. Bureau of Reclamation, Technical memorandum*, DOI: 10.13140/RG.2.2.23078.93761
- Brown, T., Simeral, D., **McEvoy, D.**, Morton, M., Redmond, K., and McCurdy, G., 2016: An Assessment of Climate Monitoring for Land Management Applications in the Great Basin, 66 pp. *Bureau of Land Management: CESU Project L13AC00262*.

Huntington, J.L., Gangopadhyay, Spears, M., Allen, R., S., King, D., Morton, **D. McEvoy**, C., Harrison, A. Joros. West-Wide Climate Risk Assessments: Irrigation Demand and Reservoir Evaporation Projections. *U.S. Bureau of Reclamation, Technical memorandum No. 68-68210-2014-01, 196 p., 754 appx.*

Huntington, J.L. and **D.J. McEvoy**, 2011: Climatological Estimates of Open Water Evaporation from Selected Truckee and Carson River Basin Water Bodies, California and Nevada. *Desert Research Institute Publication No. 41254, prepared for the Truckee River Federal Water Master, 43 pp.*

### **Invited Conference and Workshop Presentations**

**McEvoy, D. J.**, and Hatchett, B., 2023: Snow Drought in the West and Beyond, Thirteenth Biennial U.S. Drought Monitor Forum, Boulder City, Nevada, April 11-13, 2023.

**McEvoy, D. J.**, 2023: Current State of the Climate Across the West: Drought and Hydrometeorological Extremes, Kelly Redmond Memorial Lecture, PACLIM, Pacific Grove, CA, February 26-March 1, 2023.

**McEvoy, D. J.**, 2022: Climate and Wildfire in the Western US, Wildfire on the Range, Institute for Journalism and Natural Resources Workshop: Boise, ID, May 13, 2022-May 13, 2022

**McEvoy, D. J.**, 2022: Recent Advances in Drought Monitoring and Prediction Research and Tools, Operation Sierra Storm: South Lake Tahoe, California, January 9, 2022

**McEvoy, D. J.**, 2022: Putting the Recent (2020-??) Western U.S. Drought Into Historical Perspective: How bad is it and could it get worse?, Mensa Annual Gathering: Sparks, Nevada, July 6, 2022

**McEvoy, D. J.**, 2022: Climate, weather, and drought in Nevada: Looking back at the past and ahead towards the future, Nevada Drought Planning Workshop: Thinking Ahead for Dry Times, September 27, 2022

**McEvoy, D. J.**, B. Hatchett, 2021: Late Onset of Extreme Snow Drought in the Western US in 2021: Origins and Impacts: *American Geophysical Union 2021 Fall Conference*. New Orleans, LA.

**McEvoy, D. J.**, Hobbins, M., Brown, T. J., VanderMolen K., Wall, T. U., Huntington, J. L., Svoboda, M., 2018: The Evaporative Demand Drought Index: Research and Applications for Wildland Fire Management: *Predictive Services Winter Meeting*, December 4-6, Meridian, Idaho.

**McEvoy, D. J.**, Hobbins, M., Brown, T. J., VanderMolen K., Wall, T. U., Huntington, J. L., Svoboda, M., 2018: The Evaporative Demand Drought Index: Research and Applications for Wildland Fire Management: *FIRESCOPE Fall Meeting*, November 8, San Diego, CA.

**McEvoy, D. J.**, Hobbins, M., Brown, T. J., VanderMolen K., Wall, T. U., Huntington, J. L., Svoboda, M., 2018: The Evaporative Demand Drought Index: Research and Applications for Wildland Fire Management: *Advanced Fire Environment Learning Unit Fall Webinar*, November 7.

**McEvoy, D. J.**, Wall, T. U., Brown, T. J., Huntington, J. L., Hobbins, M., Svoboda, M., 2018: Establishing Relationships between Drought and Wildfire Danger Indices for Improved Wildfire Risk Management, *Nevada Water Resources Association Fall Symposium*: September 25-26, Reno, Nevada.

**McEvoy, D. J.**, 2017: California Climate and Drought Update, *CA-NV DEWS Southern California Winter Status Update*, La Jolla, CA, February, 2017

**McEvoy, D. J.**, 2016: Current Drought Conditions and What's in Store, *California Cattlemen's Drought and Disaster Assistance Workshop*, Sparks, NV, December, 2016

**McEvoy, D. J.**, 2016: California Climate and Drought Update, *CA-NV DEWS Central Valley Drought and Climate Outlook*, Fresno, CA, October, 2016

**McEvoy, D. J.**, 2016: California Climate and Drought Update, *CA-NV DEWS North Central Coast Drought and Climate Outlook*, Seaside, CA, October, 2016

**McEvoy, D. J.**, 2016: California Climate and Drought Update, *CA-NV DEWS Southern California Drought and Climate Outlook*, Riverside, CA, September, 2016

**McEvoy, D. J.**, 2016: Western Regional Climate Center: Tools You Can Use, *Inter-Tribal Buffalo Council Training*, Seattle, WA, August, 2016.

Huntington, J. L., **D. J. McEvoy**, G. McCurdy, and B. Lyles, 2016: NICE Net and Reference Evapotranspiration in Nevada, *Western States Water Council Irrigation Management Systems Workshop*, San Diego, CA, August, 2016.

**McEvoy, D. J.**, 2016: Making Sense of El Niño and Seasonal Climate Forecasts in the West, *Public lecture series: Science Distilled: The Winter that was? Reno, Nevada*.

Huntington, J. L., Daudert, B., Morton, C. G., **McEvoy, D. J.**, Abatzoglou, J. T., Hegewisch, K., Vansant, D. S., Landsfeld, M., Husak, G., Verdin, J., Friedrichs, M. (2016). Monitoring Drought with Google Earth Engine: From Archives to Answers [invited plenary presentation], *Google Earth Engine User Summit: Mountain View, CA, June 14, 2016-June 16, 2016*

**McEvoy, D.J.**, 2016: Understanding Hydrologic and Rangeland Drought in Nevada, *Nevada BLM Rangeland Seminar*, January, 2016.

Huntington, J. L., Morton, C. G., McGwire, K. C., **McEvoy, D. J.**, Niswonger, R., Peterson, S., 2015: Groundwater Appropriation, Groundwater Dependent Ecosystems, and 3M Plans in the Great Basin, *Great Basin Consortium: Boise, Idaho, February 17, 2015-February 19, 2015*

**McEvoy, D.J.**, M. Hobbins, J.L. Huntington, J. Mejia, C. Hain, M.C. Anderson, and J.P. Verdin, 2014: Exploring the Use of Physically Based Evaporative Demand Anomalies to Improve Seasonal Drought Prediction, *American Geophysical Union 2014 Fall Conference. San Francisco, CA*.

**McEvoy, D.J.**, 2014: Physically Based Evaporative Demand Anomalies as a Drought Metric: Historical Analysis and Seasonal Drought Prediction. Presented at ESRL, Boulder, CO. October 2014.

Huntington, J.L., and **D.J. McEvoy**, 2014: Accuracy of Evaporation and Evapotranspiration Models for Tahoe: Now and in the Future. Tahoe Climate Science Symposium, Tahoe Science Consortium, Sierra Nevada College, November 14<sup>th</sup>, 2014.

### **Other Select Conference Abstracts**

- Ansari, S., Huntington, J., Sheffield, A., Hegewisch, K. C., Daudert, B., Morton, C., Abatzoglou, J., **McEvoy, D.**, Erickson, T. (2023, January). Cloud-Based Drought Monitoring Using Google Earth Engine. In 103rd AMS Annual Meeting. AMS.
- Chambers, J. M., Landis, A., Walker, T., Ott, T., Morton, C., **McEvoy, D.**, ... & Huntington, J. (2023, January). A Distributed Approach toward Developing Interactive and Scalable Maps for Climate Data-Driven Web Applications at the Western Regional Climate Center. In 103rd AMS Annual Meeting. AMS.
- McEvoy, D. J.**, Hatchett, B. J., 2022: Spring Heat Waves Drive Record Western U.S. Snow Melt in 2021, MtnClim: Gothic, Colorado, September 13, 2022
- Shukla, S., Davenport, F., Grace, K., Tinni, S., Ali, A., Adoum, A., Mamane, B., Kelley, C., **McEvoy, D. J.**, Husak, G., Mahamane, M., Cherrington, E., Muench, R., Abromowitz, J., 2022: Using subseasonal climate variability at the community-level to advance place-based early warning systems in West Africa, AGU Annual Meeting: Chicago, IL, December 15, 2022
- Shukla, S., Turner, W., Husak, G., **McEvoy, D. J.**, Tinni, S., Adoum, A., Ali, A., Mamane, B., Sanda, I., Grace, K., Cherrington, E., Muench, R., 2022: Improving early warning of droughts near onset and middle of a growing season, EGU22-10481, EGU annual meeting: Vienna, Austria, May 1, 2022, doi: 10.5194/egusphere-egu22-10481
- Webb, M. J., Albano, C., Harpold, A., **McEvoy, D. J.**, 2022: The role of antecedent conditions in the amplification of flooding from atmospheric rivers along the West Coast of the United States, American Geophysical Union: Chicago, IL, December 12, 2022-December 16, 2022
- Webb, M. J., Albano, C., Harpold, A., **McEvoy, D. J.**, Wagner, D., 2022: Characterizing the roles of antecedent conditions as drivers of flood magnitudes from atmospheric rivers along the West Coast of the United States, International Atmospheric Rivers Conference (IARC): Santiago, Chile, October 10, 2022-October 14, 2022
- Brown, T. J., Abatzoglou, J. T., **McEvoy, D. J.**, Skelly, D., St. Denise, L. A., Parkinson, T., 2022: Nighttime fire behavior and climate change – A new paradigm for wildland fire management, International Association of Wildland Fire, Fire & Climate 2022 Conference: Pasadena, CA, May 23, 2022-May 27, 2022
- Brown, T. J., Abatzoglou, J. T., **McEvoy, D. J.**, Skelly, D., St. Denise, L. A., Parkinson, T., 2022: Climate Change and Nighttime Fire Behavior, 3rd International Conference on Fire Behaviour and Risk: Alghero, Sardinia, Italy, May 3, 2022-May 6, 2022
- Brown, T. J., Andrade, A., **McEvoy, D. J.**, Parker, B. A., 2022: Exploring atmospheric evaporative demand in relation to wildland fire, Advances in Forest Fire Research, IX International Conference on Forest Fire Research: Coimbra, Portugal, November 14, 2022-November 18, 2022
- Hatchett, B., L. McGuire, A. Youberg, O. Hoch, N. Oakley, **D. McEvoy**, C. Albano, J. Lancaster (2021). The role of drought in the persistence of post-fire hydrologic hazards. In AGU Fall Meeting 2021. AGU.
- Xia, S., **D. McEvoy**, M. Hobbins, J. Huntington, I. Rangwala, H. Yocum (2021). Identifying Indicators and Timescales of Agricultural Drought in the Northeast United States using Crop Area-weighted Drought Indices. In AGU Fall Meeting 2021. AGU.



- Shukla, S., **McEvoy, D.**, Tinni, S., Turner, W. A., Adoum, A., Ali, A., ... & Husak, G. J. (2021). Application of subseasonal scale climate forecasts in supporting food-insecurity early warning. In AGU Fall Meeting 2021. AGU.
- Albano, C. M., McGwire, K. C., Hausner, M. B., **McEvoy, D. J.**, Morton, C. G., Minor, B. A., Huntington, J. L. (2020). Using satellite remote sensing and climate data to assess status and trends of groundwater dependent ecosystem vegetation in Nevada, Nevada Water Resources Association: Las Vegas, NV, February 11, 2020-February 13, 2020
- McEvoy, D. J.**, Pierce, D., Kalansky, J., Cayan, D. (2020). Projected Changes in Reference Evapotranspiration in California and Nevada: Implications for Drought and Wildland Fire Danger, American Meteorological Society Annual Meeting: Boston, MA, January 12, 2020-January 16, 2020
- Shukla, S., Grace, K., Kelley, C., Issaka, L., Adoum, A., Tinni, S., **McEvoy, D. J.**, Davenport, F., Husak, G., 2020: Subseasonal scale climate variability and food insecurity in West Africa, AGU Fall Meeting: Virtual, December 1, 2020-December 17, 2020
- Verdin, J., Senay, G., Hobbins, M., **McEvoy, D. J.**, McNally, A., Magadzire, T., 2020: A Retrospective View of the Application of Global Gridded Reference Evapotranspiration, American Meteorological Society Annual Meeting: Boston, MA, January 12, 2020-January 16, 2020
- Hobbins MT, Barsugli J, Dewes C, Huntington J, Lukas J, **McEvoy D**, Morton C, Rangwala I, Ray A, Smith C, Wood A, and Yocum H (2018), The Evaporative Demand Drought Index (EDDI): early warning and monitoring of drought from the demand side. American Water Works Association Sustainable Water Management Conference, Seattle, WA, 25 March. (Invited)
- McEvoy, D. J.**, Wall, T. U., Brown, T. J., Huntington, J. L., Hobbins, M., Svoboda, M. (2018). Establishing Relationships between Drought and Wildfire Danger Indices for Improved Wildfire Risk Management, *American Meteorological Society Annual Meeting*: Austin, TX, January 8, 2018-January 8, 2018
- Shukla, S., Hobbins, M., **McEvoy, D. J.**, Husak, G., Dewes, C., McNally, A., Huntington, J. L., Funk, C., Verdin, J. (2016). Monitoring and Forecasting Reference Evapotranspiration for Food Security Assessments, *American Geophysical Union Fall Meeting: San Francisco, CA, December 12, 2016-December 16, 2016*
- Sheffield, A., Marrs, A., Wall, T. U., Cayan, D., Kalansky, J., Redmond, K. T., Huntington, J. L., **McEvoy, D. J.** (2016). Creating a Regional Drought Early Warning System (DEWS) for California and Nevada: Building Off of Information Gathered and Lessons Learned After 5 Years of Drought, *American Geophysical Union Fall Meeting: San Francisco, CA, December 12, 2016-December 16, 2016*
- Hobbins, M., Shukla, S., McNally, A., **McEvoy, D. J.**, Huntington, J. L., Husak, F., Funk, C., Senay, G., Verdin, J., Jansma, T., Jansma, T. (2016). What Role Does Evaporative Demand Play in Driving Drought in Africa?, *American Geophysical Union Fall Meeting: San Francisco, CA, December 12, 2016-December 16, 2016*
- Hegewisch, K., Daudert, B., Morton, C. G., **McEvoy, D. J.**, Huntington, J. L., Abatzoglou, J. T. (2016). Climate Engine: Monitoring Drought with Google Earth Engine, *American Geophysical Union Fall Meeting: San Francisco, CA, December 12, 2016-December 16, 2016*

- Hausner, M. B., **McEvoy, D. J.**, Morton, C. G., Smith, G. T., Fesenmyer, K., Huntington, J. L. (2016). Evaluating the Effect of Restoration Practices on Riparian Vegetation Using Remote Sensing Data, *American Geophysical Union Fall Meeting: San Francisco, CA, December 12, 2016-December 16, 2016*
- McEvoy, D. J.**, and M. Hobbins, 2016: Linking Evaporative Demand Surplus and Precipitation Deficits to Multi-Year Streamflow Drought in California, *Yosemite Hydroclimate Meeting, October, 2016, Yosemite National Park, CA*
- McEvoy, D. J.**, J. L. Huntington, and M. T. Hobbins, 2016: Analysis of the Relationship Between Nevada Surface Water Deficits and the Evaporative Demand Drought Index, *Nevada Water Resources Association Annual Conference, March 2016, Las Vegas, NV.*
- Huntington, J. L., Abatzoglou, J. T., Hegewisch, K., Daudert, B., Morton, C. G., Vansant, D. S., **McEvoy, D. J.** (2016). Nevada Drought Monitoring through Cloud Computing and Visualization of Remote Sensing and Meteorological Data, *Nevada Water Resources Association Annual Conference: Las Vegas, NV, March 1, 2016*
- Hobbins, M., **McEvoy, D. J.**, Huntington, J. L., Wood, A., Morton, C. G., Verdin, J. (2016). EDDI Examines the Current California Drought: Early Warning and Monitoring of Agricultural and Hydrologic Drought with the New Evaporative Demand Drought Index, *American Meteorological Society Annual Meeting: New Orleans, LA, January 10, 2016-January 14, 2016*
- McEvoy, D. J.**, J. L. Huntington, and M. T. Hobbins, 2015: Optimization of evaporative demand models for seasonal drought forecasts. *American Geophysical Union 2015 Fall Conference. San Francisco, CA.*
- Vitale, A., C. Morton, J. L. Huntington, F. S. Melton, A. Guzman, and **D. J. McEvoy**, 2015: Development of a complete Landsat evapotranspiration and energy balance archive to support agricultural consumptive water use reporting and prediction in the Central Valley, CA. *American Geophysical Union 2015 Fall Conference. San Francisco, CA.*
- Hobbins, M. T., **D. J. McEvoy**, J. L. Huntington, A. W. Wood, C. Morton, and J. P. Verdin, 2015: The current California drought through EDDI's eyes: early warning and monitoring of agricultural and hydrologic drought with the new Evaporative Demand Drought Index. *American Geophysical Union 2015 Fall Conference. San Francisco, CA.*
- Huntington, J. L., Morton, C. G., McGwire, K. C., Hegewisch, K., Daudert, B., Abatzoglou, J. T., **McEvoy, D. J.**, Vansant, D. S., Niswonger, R., Peterson, S., 2015: Quantifying Groundwater Dependent Ecosystem Changes Associated with Water Availability and Management in Arid Environments using the Landsat Archive, *Landsat Science Team Meeting: Sioux Falls, South Dakota, July 7, 2015-July 9, 2015*
- McEvoy, D. J.**, J. L. Huntington, and M. T. Hobbins, 2015: Analysis of the Relationship Between California Surface Water Deficits and the Evaporative Demand Drought Index, Poster presentation at *American Geophysical Union Chapman Conference: California Drought: Causes, Impacts, and Policy. April 20-22.*
- Hegewisch, K., Daudert, B., Morton, C. G., Peterson, A., Joros, A. N., **McEvoy, D. J.**, Erickson, T., Huntington, J. L., Abatzoglou, J. T., 2015: Google Drought Monitoring Through Cloud Computing and Visualization of Remote Sensing and Meteorological Datasets: Examples for California, *American Geophysical Union Chapman Conference: Irvine, CA, April 20, 2015-April 22, 2015*

- Hobbins, M. T., **D. J. McEvoy**, J. L. Huntington, A. W. Wood, and J. P. Verdin, 2015: Monitoring the California Drought with a novel drought index: the Evaporative Demand Drought Index (EDDI). Poster presentation at *American Geophysical Union Chapman Conference: California Drought: Causes, Impacts, and Policy*. April 20-22.
- Dorman, C.E., J. Mejia, D. Koracin, and **D. McEvoy**, 2015: Long Term Increases in Fog Occurrence Over the NW Pacific and NW Atlantic Fog Maximums, Poster presentation at *American Meteorological Society Annual Meeting, Phoenix, AZ, January 4-8*.
- Hobbins, M., **D.J. McEvoy**, J.L. Huntington, A.W. Wood, J.P. Verdin, 2014: The Evaporative Demand Drought Index: The Physical Basis. Poster presentation at *American Geophysical Union 2014 Fall Conference*. San Francisco, CA.
- Dorman, C.E., J. Mejia, D.R. Koracin and **D.J. McEvoy**, 2014: Interaction of the Marine Atmosphere, Coastal Topography and Sea Surface Temperature on Marine Fog Distribution Along the West Coast of North America. *American Geophysical Union 2014 Fall Conference*. San Francisco, CA.
- McEvoy, D.J.**, J.F. Mejia, and J.L. Huntington, 2014: Use of an Observation Network in the Great Basin to Evaluate Gridded Climate Data and Associated Precipitation Measurement Uncertainties, Oral presentation at *Global Fair and Workshop on Long-Term Observations of Mountain Social-Ecological Systems, Reno, NV, July 16-19*.
- McEvoy, D.J.**, Hobbins, T., Huntington, J.L., and A. Wood, 2014: Tracking Flash Drought with Land-Atmospheric Feedbacks. Oral presentation at *American Meteorological Society Annual Meeting, Atlanta, GA, February 2-6*. [**2<sup>nd</sup> Place Student Oral Presentation**]
- McEvoy, D. J.**, J. L. Huntington, J. T. Abatzoglou, 2013: A Comparison of the Standardized Precipitation Evapotranspiration Index Using Thornthwaite and Penman-Monteith Parameterizations for Potential Evapotranspiration. Poster presentation at *2013 Annual Meeting of the American Meteorological Society*, January 2013, Austin, TX.
- Redmond, K. T., J. T. Abatzoglou, **D. J. McEvoy**, A. Joros, D. VanSant, and L. M. Edwards, 2013: The WestWide Drought Tracker: Drought Monitoring at Fine Spatial Scales. Oral presentation at *2013 Annual Meeting of the American Meteorological Society*, January 2013, Austin, TX.
- McEvoy, D. J.**, J. L. Huntington, J. T. Abatzoglou, and L. M. Edwards, 2012: An evaluation of multi-scalar drought indices in Nevada and eastern California. Poster presentation at *2012 Nevada Water Resources Association Annual Conference*, March 2012, Las Vegas, NV. [**2<sup>nd</sup> Place Student Poster**]
- Huntington, J.L., and **D.J. McEvoy**, 2012: Climatological Estimates of Open Water Evaporation from Selected Truckee & Carson River Basin Water Bodies, California & Nevada. Nevada Water Resources Association Annual Conference, March 5-8, Las Vegas, NV
- K.C. King, J. F. Mejia, **D. J. McEvoy**, and D. Koracin, 2012: Evaluation of Regional Downscaling Predictions of Future Drought Probabilities in the Western United States. Oral presentation at *2012 Annual Meeting of the American Meteorological Society*, January 2012, New Orleans, LA

**McEvoy, D. J.**, L. M. Edwards, and J. L. Huntington, 2011: The utility of precipitation indices as indicators of drought in Nevada and eastern California. Poster presentation at *2011 Fall Meeting of American Geophysical Union*, December 2011, San Francisco, CA.

**McEvoy, D. J.**, L. M. Edwards, and J. L. Huntington, 2011: The utility of precipitation indices as indicators of drought in Nevada. Oral presentation at *19th AMS Applied Climatology Conference*, July 2011, Asheville, NC. [**2<sup>nd</sup> Place Student Oral Presentation**]

## **Professional Activities**

*Associate Editor*: Journal of Hydrometeorology, March 2018-present

*Associate Editor*: Frontiers in Climate Services, September 2019-present

*Reviewer of manuscripts*: Journal of Geophysical Research (Atmospheres), Journal of Hydrometeorology, Forests, Environmental Modeling and Software, Water Resources Research, Atmosphere, Journal of Climate, Remote Sensing of Environment, Climatic Change, Water, Physical Geography, Journal of Hydrology, Natural Hazards, Geophysical Research Letters, Journal of the American Water Resources Association, Hydrology and Earth System Science, Environmental Research Letters, Natural Hazards and Earth Systems Science, Scientific Data

*Climate lead*: NOAA West Watch (NWW) project, Fall 2015 through present. NWW was developed under the NOAA West team with the primary goal of sharing and documenting anomalous environmental information and impacts on human systems. Monthly webinars are held that cover an overview of changing regional climate conditions, including ENSO status, and summarize recent impacts on human systems. Presentation archive:

<https://wrcc.dri.edu/Climate/WestWatch/>

*Member*: American Meteorological Society

*Member*: American Geophysical Union

*Member*: Nevada Water Resources Association

## **Teaching Experience**

### ***Courses taught***

Climatology, (GEOG-ATMS 421/621), University of Nevada, Reno, Spring 2022

### ***Guest lectures***

Principles of Ecohydrology (NRES 295), University of Nevada, Reno, NV, Fall 2016 – Lecture title:  
*Drought: Definitions, Monitoring, and Local Insight*

Principles of Ecohydrology (NRES 295), University of Nevada, Reno, NV, Fall 2014 – Lecture title: *Precipitation measurement: methods and uncertainty*

Humans and the Environment (ENV 100), Truckee Meadows Community College, Reno, NV, Spring 2012 – Lecture title: *Introduction to Weather and Climate*

## **Skills**

### ***Software and programming languages***

- Python, Matlab, Fortran
- Experience operating on a UNIX platform and with automation processes: Bash scripting and crontab
- Microsoft Office
- ArcGIS (and ArcPy)

### ***Regional Climate Modeling and Numerical Weather Prediction***

- Experience using the Weather Research and Forecasting (WRF) model

## **Personal Interests**

- Anything to do with the outdoors! Skiing, mountain biking, rock climbing, and fishing are just a few of my favorites.
- Spending time with my family. I'm married with one daughter and two sons.