# Justin L. Huntington

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ResearchGate Profile - <a href="https://goo.gl/62VdzU">https://goo.gl/62VdzU</a>

## **INTERESTS**

Quality research, instruction, and outreach that incorporates remote sensing, land surface energy and water budget measurement and modeling, and advanced geospatial data analysis for improved natural resource understanding, monitoring, and prediction.

# PROFESSIONAL PREPERATION

University of Nevada, Reno	Hydrology	Ph.D., 2011
University of Nevada, Reno	Hydrology	M.S., 2003
University of Nevada, Reno	Environmental Science	B.S., 2000

## PROFESSIONAL APPOINTMENTS

2018 - pres.	Research Professor, Hydrology, Desert Research Institute;
	Hydroclimatologist, Western Regional Climate Center
2014 - pres.	Associate Research Professor, Hydrology, Desert Research Institute;
•	Hydroclimatologist, Western Regional Climate Center;
	Adjunct Faculty, Natural Resources and Environmental Sciences,
	University of Nevada, Reno,
2012 - 2014	Assistant Research Professor, Hydrology, Desert Research
	Institute, Reno, Nevada
2019 - 2012	Assistant Research Hydrologist, Desert Research
	Institute, Reno, Nevada
2006 - 2019	Hydrologist, Nevada Division of Water Resources, State
	Engineer's Office, Carson City, Nevada
2004 - 2006	Research Assistant, Desert Research Institute, Reno, Nevada
2002 - 2004	Research Assistant, Geophysics Graduate Program, Boise State
	University, Boise, Idaho
2000 - 2002	Hydrologist, Boise National Forest, Boise, Idaho
1998 - 2002	Hydrology Intern, Washoe County Department of Water Resources,
	Reno, Nevada

#### HONORS and AWARDS

- o Selected to serve on the U.S. Geological Survey Landsat Science Team (2018-2023)
- o Selected as a member of Governor Sandoval's Nevada Drought Forum (2015)
- o Regents' Rising Researcher Award Nevada System of Higher Education (2014)
- o Advisor of the Year Award Desert Research Institute (2013)
- Wagner Medal of Excellence for Scholars in Early Stages of Career Development -Desert Research Institute (2012)

- o Selected to serve on the U.S. Geological Survey Landsat Science Team (2012-2017)
- Mad Hatter Award University of Nevada Reno, Graduate Program of Hydrological Sciences (2011)

## AWARDS OF STUDENTS

- o 3<sup>rd</sup> Place Student Poster (2020), Thomas Ott, "Remote Sensing of Groundwater Pumping, Diamond Valley, Nevada" Nevada Water Resources Association Annual Conference
- 1st Place Student Poster (2014), Ryan Liebert, "Estimating Open Water Evaporation for Lake Mead with Remote Sensing" - Nevada Water Resources Association Annual Conference
- 1st Place Student Poster (2013), Ryan Liebert, "Remote Sensing of Reduced Evapotranspiration from Tamarisk Defoliation Along the Lower Virgin and Muddy Rivers" - Nevada Water Resources Association Annual Conference
- 1st Place Student Poster (2012), Lindsay Gilbertson, "Estimating Agricultural Water Use from Remote Sensing in Amargosa Valley: Will Solar Power Use More?" - Nevada Water Resources Association Annual Conference
- 2<sup>nd</sup> Place Student Poster (2012), Dan McEvoy, "Utility of Precipitation Indices as Indicators of Drought in Nevada" - Nevada Water Resources Association Annual Conference
- 1st Place Student Poster (2011), Jordan Beamer, "Annual Evapotranspiration Estimation using Landsat and Flux Tower Data" - Nevada Water Resources Association Annual Conference
- 2<sup>nd</sup> Place Student Presentation (2011), Dan McEvoy, "Utility of Precipitation Indices as Indicators of Drought in Nevada" - 19th Conference on Applied Climatology, American Meteorological Association Conference on Climate Adaptation

# PUBLICATIONS (\*graduate student, \*\*undergraduate student)

- 51. Albano, C., Abatzoglou, J., McEvoy, D., **Huntington**, J., Morton, C., Dettinger, M., and T. Ott. (2021). A Multi-dataset Assessment of Climatic Drivers and Uncertainties of Recent Trends in Evaporative Demand Across the Continental U.S. Journal of Hydrometeorology. (accepted w/ minor revisions)
- 50. Volk, J., **Huntington**, J., Allen, R., Melton, F., Anderson, M., & Kilic, A. (2021). flux-data-qaqc: A Python Package for Energy Balance Closure and Post-Processing of Eddy Flux Data. Journal of Open Source Software, 6(66), 3418.
- 49. Melton, F., **Huntington**, J.L., Grimm, R., Herring, J., Hall, M., Rollison, D., Erickson, T., Allen R., Anderson, M., Blankenau., P., et. al (2021). OpenET Filling the Biggest Data Gap in Water Management for the Western U.S. Journal of the American Water Resources Association.
- 48. Allen, R., Dhungel, R., Dhungana, B., **Huntington**, J., Kilic, A., C. Morton. (2020). Conditioning Point and Gridded Weather Data Under Aridity Conditions for Calculation of Reference Evapotranspiration. Journal of Agricultural and Forest Meteorology.
- 47. McCullum, A.J., McClellan, C., Daudert, B., **Huntington**, J., Green, R., Ly. V., Marley, A., Tulley, N., Morton, C., Hegewisch, K., McEvoy, D., and J., Abatzoglou. (2020). Satellite-based Drought Reporting on the Navajo Nation. Journal of the American Water Resources Association.
- 46. Allen, R., Robison, C., and J. Huntington (2020). Applying the FAO56 Dual Kc Method for

- Irrigation Water Requirements Over Large Areas in the U.S. Transactions of the American Society of Agricultural and Biological Engineers.
- 45. Ketchum, D., Jencso, K., Maneta, M. P., Melton, F., Jones, M. O., and J. L. **Huntington** (2020). IrrMapper: A Machine Learning Approach for High Resolution Mapping of Irrigated Agriculture Across the Western US. Remote Sensing, 12(14), 2328.
- 44. Albano, C. M., McGwire, K. C., Hausner, M. B., McEvoy, D. J., Morton, C. G., and J. L. **Huntington** (2020). Drought Sensitivity and Trends of Riparian Vegetation Vigor in Nevada, USA (1985–2018). Remote Sensing, 12(9), 1362.
- 43. Albano, C. M., McClure, M. L., Gross, S. E., Kitlasten, W., Soulard, C. E., Morton, C., and **Huntington**, J. (2019). Spatial patterns of meadow sensitivities to interannual climate variability in the Sierra Nevada. Ecohydrology, e2128.
- 42. Snyder, K. A., **Huntington**, J. L., Wehan, B. L., Morton, C. G., and Stringham, T. K. (2019). Comparison of Landsat and Land-Based Phenology Camera Normalized Difference Vegetation Index (NDVI) for Dominant Plant Communities in the Great Basin. Sensors, 19(5), 1139.
- 41. McEvoy, D.J., M. Hobbins, T.J. Brown, K.A. VanderMolen, T.U. Wall, J.L. **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).
- 40. Wulder, M., Loveland, T., Roy, D., Crawford, C., Masek, J., Woodcoks, E., Allen R., Anderson, M., Belward, Al., Cohen, W., Dwyer, J., Erb, A., Gao, F., Griffiths, P., Helder, D., Hermosilla, T., Hipple, J., Hostert, P., Hughes, J., Huntington, J., Johnson, D., Kennedy, R., Kilic, A., Li, Z., Lymburner, L., McCorkel, J., Pahlevan, N., Scambos, T., Schaaf, C., Schott, J., Sheng, Y., Storey, J., Vermote, E., Vogelmann, J., White, J., Wynne, R., and X. Xhu (2019). Current Status of Landsat Program, Science, and Applications. Remote Sensing of Environment, p 127-147.
- 39. Breitmeyer, R. J., Stewart, M. K., and J.L. **Huntington**. (2018). Evaluation of Gridded Meteorological Data for Calculating Water Balance Cover Storage Requirements. Vadose Zone Journal, 17(1).
- 38. \*Gardner, M. A., Morton, C. G., **Huntington**, J.L., Niswonger, R. G., and W.R. Henson. (2018). Input data processing tools for the integrated hydrologic model GSFLOW. Environmental Modelling & Software, 109, 41-53.
- 37. Hausner, M., **Huntington**, J., Nash, C., Morton, C., Hedgewisch, K., Daudert, B., McEvoy, D., Abatzoglou, J., and D., Polloid. (2018). Assessing the Success of Riparian Restoration Projects using Remote Sensing and Climate Data. Ecological Engineering.
- 36. Friedrich, K., Grossman, R., **Huntington**, J., Blanken, P., Lenters, J., Holman, K., Gochis, D., Livneh, B., Prairie, J., Skeie, E., Healey, N., Dahm, K., Pearson, C., Finnessey, T., Hook, S., and T. Kowalski. (2018). Reservoir Evaporation in the Western United States: Current Science, Challenges, and Future Needs. Bulletin of the American Meteorological Society.
- 35. Pilliod, D., Rohde, A., Charnley, S., Davee, R., Dunham, J., Gosnell, H., Grant, G., Hausner, M., **Huntington**, J., and C. Nash. (2018). Beaver-related Restoration Practices in Rangeland Streams of the Western U.S.A. Restoration Ecology.
- 34. **Huntington**, J., Hegewisch, K., Daudert, B., Morton, C., Abatzoglou, J., McEvoy, D., and T., Erickson. (2017). Climate Engine: Cloud Computing of Climate and Remote Sensing Data for Advanced Natural Resource Monitoring and Process Understanding. Bulletin of

- the American Meteorological Society.
- 33. Shukla, S., McEvoy, D., Hobbins, M., Husak, G., **Huntington**, J., Funk, C., and J. Verdin. (2017). Examining the Value of Seasonal Reference Evapotranspiration Forecasts to Support FEWS NET's Food Insecurity Outlooks. Journal of Applied Meteorology and Climatology.
- 32. Crago, R., Szilagyi, J., Qualls, R., and J. **Huntington**. (2017). Reply to Comment by Ma and Zhang A Rescaling of the Complementary Relationship for Land Surface Evaporation. Water Resources Research, 10.1002/2017WR021021
- 31. \*Nadler, C., Allander, K., Pohll, G., Morway, E., Naranjo, R., and J. **Huntington**. (2017). Evaluation of Bias Associated with Cpature Maps Derived from Nonlinear Groundwater Flow Models. Groundwater, doi:10.1111/gwat.12597.
- 30. Niswonger, R., Morway, Triana, E., and J. **Huntington**. (2017). Managed Aquifer Recharge through Off-season Irrigation in Agricultural Regions. Water Resources Research, 10.1002/2017WR020458.
- 29. Crago, R., Szilagyi, J., Qualls, R., and J. **Huntington**. (2016). Reply to Comment by Ma and Zhang A Rescaling of the Complementary Relationship for Land Surface Evaporation. Water Resources Research, 10.1002/2017WR021021
- 28. McGwire, K., Weltz, M., Snyder, K., **Huntington**, J., Morton, C., and D. McEvoy. (2017). Satellite Assessment of Early Season Forecasts for Vegetation Conditions of Grazing Allotments in Nevada, U.S.A. Rangeland Ecology and Management, 70(6) 730-739.
- 27. Carroll, R., **Huntington**, J., Snyder, K., Niswonger, R., Morton, C., and T. Stringham, (2017). Evaluating Mountain Meadow Groundwater Response to Pinyon-Juniper and Temperature in a Great Basin Watershed. Ecohydrology, 10:e1792.doi:10.1002/eco.1792
- 26. **Huntington**, J., McGwire, K., Morton, C., Snyder, K., Peterson, S., Erickson, T., Niswonger, R., Carroll, R., \*Smith, G., and R. Allen. (2016). Assessing the Role of Climate and Resource Management on Groundwater Dependent Ecosystem Changes in Arid Environments with the Landsat Archive. Remote Sensing of Environment.
- 25. Snyder, K., Wehan, B., Filippa, G., **Huntington**, J., Stringham, T., and D. Snyder. (2016). Extracting Plant Phenology Metrics in a Great Basin Watershed: Methods and Considerations for Quantifying Phenophases in a Cold Desert. Sensors, 16(11), 1948
- 24. Crago, R., Szilagyi, J., Qualls, R., and J. **Huntington**. (2016). A Rescaling of the Complementary Relationship for Land Surface Evaporation. Water Resources Research, 52(11), 8461-8471.
- 23. Hobbins, M., Wood, A., \*McEvoy, D., **Huntington**, J., and C.G. Morton. (2016). Evaporative Demand Drought Index: Part I Theory and Formulation. Journal of Hydrometeorology.
- 22. \*McEvoy, D., **Huntington**, J., Hobbins, M., Wood, A., and C.G. Morton. (2016). Evaporative Demand Drought Index: Part II Application and Assessment. Journal of Hydrometeorology.
- 21. Hobbins, M.T. and J.L. **Huntington.** (2016). Evapotranspiration and Evaporative Demand, Chapter 44, Handbook of Applied Hydrology, edited by V. P. Singh, McGraw-Hill Education, New York.
- 20. \*McEvoy, D.J., **Huntington**, J.L., Mejia, J.F., and M.T. Hobbins. (2015). Improved Seasonal Drought Forecasts using Reference Evapotranspiration Anomalies. Geophysical Research Letters, 377–385, doi:10.1002/2015GL067009.
- 19. \*Liebert, R., Huntington, J.L., Morton, C., Sueki, S., and K. Acharya. (2015). Estimating

- Water Salvage from Leaf Beetle Induced Tamarisk Defoliation in the Lower Virgin River Using Satellite Based Energy Balance. Journal of Ecohydrology, doi: 10.1002/eco.1623
- 18. \*Suiki, S., Acharya, K., **Huntington**, J.L., \*Liebert, R., Healey, J., Jasoni, R., and M. Young. (2015). Defoliation Effect of Tamarisk Biocontrol agent, Diorhabda carinulata, on Evapotranspiration and Groundwater Levels. Journal of Ecohydrology
- 17. Carroll, R., Pohll, G., Morton, C., and J.L., **Huntington**. (2015). Calibrating Basin-Scale Groundwater Models to Remotely Sensed Estimates of Groundwater Evapotranspiration. Journal of the American Water Resources Association, doi: 10.1111/jawr.12285
- 16. \*McEvoy, D.J., Mejia, J.F., and J.L. **Huntington**. (2014). Use of an Observation Network in the Great Basin to Evaluate Gridded Climate Data. Journal of Hydrometeorology, 15, 19131931. doi:10.1175/JHM-D-14-0015.
- 15. Roy, D. P., Wulder, M. A., Loveland, T. R., Woodcock, C. E., Allen, R. G., Anderson, M. C., Helder, D., Irons, J. R., Johnson, D. M., Kennedy, R., Scambos, T., Schaaf, C. B., Schott, J. R., Sheng, Y., Vermote, E. F., Belward, A. S., Bindschadler, R., Cohen, W. B., Gao, F., Hipple, J. D., Hostert, P., Huntington, J., Justice, C. O., Kilic, A. Kovalskyy V., Lee Z. P., Lymburner L., J. Masek, J. McCorkel, Shuai Y., Trezza R., Vogelmann J., Wynne R.H., and Zhu Z. (2014). Landsat-8: Science and product vision for terrestrial global change research. Remote Sensing of Environment, 145: 154-172.
- 14. \*Beamer, J., **Huntington**, J.L., \*Morton, C., and G. Pohll. (2013). Estimation of annual Groundwater Evapotranspiration from Phreatophyte Vegetation in the Great Basin using Remotely Sensed Vegetation Indices and Ground Based Flux Tower measurements. Journal of the American Water Resources Association, 49(3): 518-533. doi: 10.1111/jawr.12058.
- 13. \*Morton, C., **Huntington**, J.L., Pohll, G., Allen, R., McGwire, K., and S. Bassett. (2013). Assessing Calibration Uncertainty and Automation for Estimating Evapotranspiration from Agricultural Areas Using METRIC. Journal of the American Water Resources Association, 49(3): 549-562. doi: 10.1111/jawr.12054.
- 12. \*Jaksa, W., Shridhar, V., and J.L. **Huntington**. (2013). Evaluation of the Complementary Relationship using Noah Land Surface Model and North American Regional Reanalysis (NARR) Data to Estimate Evapotranspiration in Semiarid Ecosystems. Journal of Hydrometeorolog. doi: 10.1175/JHM-D-11-067.1.
- 11. Sridhar, V., \*Jaksa, W., and J.L. **Huntington**. (2013). Spatial Mapping of Evapotranspiration Using the Complementary Relationship. Natural Ecosystems. ed. Nova Science Publishers, pp. 187-204, ISBN: 978-1-62417-138-3.
- 10. Allen, R.G., Burnett, B., Kramber, W., **Huntington**, J.L., Kjaersgaard, J., Irmak, A., Kelly, C., and R. Trezza. (2013). Automated Calibration of the METRIC-Landsat Evapotranspiration Process. Journal of the American Water Resources Association, 49(3): 563-576. doi: 10.1111/jawr.12056.
- 9. **Huntington**, J.L. and R.G. Niswonger. (2012). Role of surface-water and groundwater interactions on projected summertime streamflow in snow dominated regions: An integrated modeling approach, Water Resources Research, 48, W11524, doi:10.1029/2012WR012319.
- 8. \*McEvoy, D.J., **Huntington**, J.L., Abatzoglou, J., and L. Edwards. (2012). An Evaluation of Multi-scalar Drought Indices in Nevada and Eastern California. Earth Interactions, 16, 1-18.
- 7. Mejia, J., Huntington, J.L., \*Hatchett, B., D. Koracin, and R.G. Niswonger. (2012). Linking

- Global Climate Models to an Integrated Hydrologic Model Using an Individual Station Downscaling Approach. Journal of Contemporary Water Research and Education. 147:1, 17-27.
- 6. Irmak, A., Allen, R., Kjaersgaard, J.L., **Huntington**, J., Kamble, B., Trezza, R., and I. Ratcliffe. (2012). Operational Remote sensing of ET and Challenges. Remote Sensing and Modeling. ed. InTech. ISBN:978-953-307-808-3
- 5. \*Huntington, J.L., J. Szilagyi, S. Tyler, and G. Pohll. (2011). Evaluating the Complementary Relationship for Estimating Evapotranspiration from Arid Shrublands. Water Resources Research. 47, W05533, doi:10.1029/2010WR009874.
- 4. Groeneveld, D.P., J.L. \*Huntington, and D.D. Barz. (2010). Floating Brine Crusts, Reduction of Evaporation, and Possible Replacement of Fresh Water to Control Dust from Owens Lakebed, California. Journal of Hydrology. 392:211-218.
- 3. \*Epstein, B.J., G.M., Pohll, J.L. \***Huntington**, and R.H. Carrol. (2010). Development and Uncertainty Analysis of an Empirical Recharge Prediction Model for Nevada's Desert Basins. Journal of the Nevada Water Resources Association. 5:1,1-22.
- 2. \*Stevick E., G. Pohll, and J.L. \***Huntington**. (2005). Locating new production wells using a probabilistic based groundwater model. Journal of Hydrology. 303(1-4), pp 231-246.
- 1. \*Morse, B. S., G. Pohll, J.L. \***Huntington**, and R. Rodriguez Castillo. (2003). Stochastic capture zone analysis of an arsenic-contaminated well using the generalized likelihood uncertainty estimator (GLUE) methodology. Water Resources Research, 39(6), 1151, doi:10.1029/2002WR001470.

#### PEER REVIEWED REPORTS

- 17. Albano, C. M., Minor, B. A., Freed, Z., **Huntington**, J. L. (2020). Status and Trends of Groundwater Dependent Vegetation in Relation to Climate and Shallow Groundwater in the Harney Basin, Oregon, Desert Research Institute: Technical Report, Publication Number 41280.
- Slattery, R. N., Ockerman, D. J., Bromley, M., Huntington, J., and Banta, J. R. (2020). Effects of huisache removal on rangeland evapotranspiration in Victoria County, south-central Texas, 2015–18 (No. 2020-5008). U.S. Geological Survey Scientific Investigations Report.
- 15. Pearson, C., and J. **Huntington**. (2019). Remote Sensing and Cloud Computing to Support Lake Tahoe Nearshore Monitoring. Desert Research Institute Publication Prepared for Nevada Division of Environmental Protection.
- 14. **Huntington**, J., Bromley, M., Morton, C., and T. Minor (2018). Remote Sensing Estimates of Evapotranspiration from Irrigated Agriculture, Northwestern Nevada. Desert Research Institute Publication Prepared for U.S. Bureau of Reclamation and Nevada Division of Water Resources, Publication No. 41275, p.48.
- 13. Caldwell, T., **Huntington**, J., Scanlon, B., Joros, A., and T., Howard. (2017). Improving Irrigation Water Use Estimates with Remote Sensing Technologies: An Initial Feasibility Study for Texas. University of Texas, Bureau of Economic Geology Report prepared for Texas Water Development Board, 137 p.
- 12. **Huntington**, J., Morton, C., McEvoy, D., Bromley, M., Hedgewisch, K., Allen, R., and S. Gangopadhyay. (2016). Historical and Future Irrigation Water Requirements for Selected Reclamation Project Areas, Western U.S. Desert Research Institute Publication, DOI: 10.13140/RG.2.2.23078.93761, 87 p., <a href="http://www.usbr.gov/WaterSMART/wcra/">http://www.usbr.gov/WaterSMART/wcra/</a>

- 11. **Huntington**, J., Morton, C., and M. Bromley. (2016). Remote Sensing of Groundwater Discharge from Chicago Valley, Shoshone Area, and Tecopa/California Valley Area, California. Report prepared for The Nature Conservancy, 28 p.
- 10. **Huntington**, J., Morton, C., and M. Bromley. (2016). Landsat Derived Phreatophyte Groundwater Evapotranspiration, Crescent Valley, Pine Valley, Carico Lake, and Grass Valley, Central Nevada. Report prepared for Barrick Gold, 28 p.
- 9. **Huntington**, J.L., Gangopadhyay, S., Spears, M., Allen, R. King, D., Morton, C., Harrison, A., \*McEvoy, D., and A. Joros. (2015). 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., 841 app., <a href="http://www.usbr.gov/WaterSMART/wcra/">http://www.usbr.gov/WaterSMART/wcra/</a>
- 8. **Huntington**, J.L., Morton, C.G., \*Bromley, M., \*Liebert, R., and K. Paudel. (2015). Landsat Evapotranspiration from Phreatophyte and Irrigated Areas, Boulder Flat, Humboldt River Basin, Nevada. Desert Research Institute Publication, prepared for Barrick Gold Corporation, 49 p.
- 7. Rajagopal, S., **Huntington**, J.L., Niswonger, R., Pohll, G., \*Gardner, M., Morton, C., Zhang, Y., and D.M., Reeves. (2015). Integrated Surface and Groundwater Modeling of Martis Valley, California, for Assessment of Potential Climate Change Impacts on Basin-Scale Water Resources. Desert Research Institute Publication No. 41261, prepared for U.S. Bureau of Reclamation, 54 p.
- 6. **Huntington**, J.L., Morton, C.G., \*Bromley, M, and R. \*Liebert. (2013). Analysis of Evapotranspiration for the Muddy River Springs Area. Desert Research Institute Technical Memo, prepared for Southern Nevada Water Authority, 51 p.
- 5. \*Huntington, J.L. and D. \*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 p.
- 4. \*Huntington, J.L. and R. Allen. (2010). Evapotranspiration and Net Irrigation Water Requirements for Nevada. Nevada State Engineer's Office Publication, 266 p.
- 3. Jeton, A.E., Watkins, S.A., Lopes, T.J., and J.L. \*Huntington. (2006). Evaluation of Precipitation Estimates from PRISM for the 1961–90 and 1971–2000 Data Sets, Nevada. Scientific Investigations Report 2005-5291. U.S. Geological Survey, Carson City, NV.
- 2. Pohll, G., Bohm, B., \*Stevick, E., and J.L. \*Huntington. (2004). Evaluation of Groundwater Supplies in the Fernley Area, NV. Desert Research Institute, Division of Hydrologic Sciences Report. No. 41201.
- 1. \*Huntington, J.L. (2002). Equivalent Clear Cut Analysis using TauDEM, Shafer Butte Watershed, Idaho. Boise National Forest Report, 21 p.

## PROCEEDINGS PAPERS

- 5. Carroll, R., **Huntington**, J.L., 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. Proceedings Paper, MODFLOW and More, Golden, Colorado, May 31- June 3.
- 4. Mejia, J.F., Niswonger, R.G., and J.L. **Huntington**. (2014). Uncertainty Transfer in Modeling Layers: From GCM to downscaling to hydrologic surface-groundwater modeling. Proceedings of the 7th International Congress on Environmental Modelling

- and Software, June 15-19, San Diego, California, USA. ISBN: 978-88-9035-744-2.
- 3. **Huntington**, J.L., Niswonger, R.G., Rajagopal, S. Zhang, Y., \*Gardner, M., Morton, C., Reeves, D.M., McGraw, D., and G.M. Pohll. (2013). Integrated Hydrologic Modeling of Lake Tahoe and Martis Valley Mountain Block and Alluvial Systems, Nevada and California. Proceedings Paper, MODFLOW and More 2013, June 2-5, 2013, Golden, Colorado.
- Allen R.G., Hendrickx, J., Bastiaanssen, W., Kjaersgaard, J., Irmak, A., and J.L.
   \*Huntington. (2010). Status and Continuing Challenges in Operational Remote Sensing of Evapotranspiration. Proceedings Paper IRR10-9971, 5<sup>th</sup> National Decennial Irrigation Conference Sponsored jointly by ASABE and Irrigation Association, Phoenix, Arizona, December 5-8.
- 1. \*Huntington, J.L., and R. Allen. (2009). Evapotranspiration and Net Irrigation Water Requirements for Nevada. Proceedings of the ASCE-EWRI World Environmental and Water Resources Congress, Kansas City, MO, May 17-21, doi:10.1061/41036(342)420.

# OTHER PUBLICATIONS

- 8. Pearson, C., Lutz, A., and J.L. **Huntington**. (2020). Improving Evaporation Monitoring at Lake Hodges, California: FY2020 Summary. Desert Research Institution Report.
- 7. Pearson, C., Volk, J. M., Lyles, B. F., Bromley, M., **Huntington**, J. L. (2020). Evaporation Monitoring at Lahontan Reservoir, Nevada: 2014-2020 Data Collection Summary. Desert Research Institution Report.
- 6. Sterle, K. M., Singletary, L., Lee, G., Rollins, K., Pohll, G. M., McCarthy, M. I., Rajagopal, S., Albano, C. M., Boyer, W., Huntington, J. L., Dettinger, M. D., Niswonger, R., Morway, E., Kitlasten, W., Gardner, M., Coors, S., Jose, L. (2020). Water Sustainability and Climate in the Truckee-Carson River System, Western United States: 10 Key Takeaways from the Water for the Seasons Collaborative Research Program, University of Nevada, Reno Cooperative Extension, SP-20-02
- 5. Pearson, C., Hausner, M. B., Morton, C. G., **Huntington**, J. L. (2020). Development of Remote Sensing Analyses to Support Management of Mountain Meadows in the Lake Tahoe Basin. Desert Research Institute Report.
- 4. Pearson, C., **Huntington**, J. L., Volk, J. M., Dunkerly, C. W. (2020). Agricultural Evapotranspiration and Net Irrigation Water Requirements for the Upper Colorado River Basin: 2019 ET Demands Model Summary.
- 3. Drozdoff, L., Ensminger, J., Barbee, J., Boyle, D., Walker, M., **Huntington**, J., and C. Cage. (2015). Nevada Drought Forum: Recommendations Report Presented to Governor Brian Sandoval, 281 p.
- 2. Allen, R., Anderson, M., Bolten, J., Cestti, R., Fisher, J., Hain, C., Harshadeep, N., Huntington, J., Hobbins, M., Hook, S., Johnson, L., Kilic, A., Kustas, W., Lee, C., Melton, F., Morse, T., Tracy, J., and J., Verdin. (2015). Evapotranspiration Mapping for Water Security: Recommendations and Requirements. Recommendations of the Participants of the 2015 Workshop on Evapotranspiration Mapping for Water Security, Washington, D.C., September 15-17, 2015. National Academies of Science, Engineering, and Medicine's Earth Science and Application Decadal Survey, 12p.
- 1. **Huntington**, J.L. (2014). Water Transfers from Alfalfa to Cities. Progressive Forage Magazine, 15(6), 19.

- 69. **Huntington**, J., Pearson, C., Daudert, B., Hansen, J. (2021). Monitoring Daily Reservoir Evaporation Losses for the State of Texas: Phase II. Texas A&M, \$157,000. (2021-2022).
- 68. **Huntington**, J.L., Daudert, B., C. Morton, J. Hansen, J. Volk, C. Pearson, T. Ott, B. Minor. (2021). OpenET. Windward, **\$820,000** (2021-2022).
- 67. **Huntington**, J.L., and C. Pearson (2021). Developing Evapotranspiration and Effective Precipitation Estimates to Support Natural Flow Modeling in the Klamath River Basin, U.S. Bureau of Reclamation, \$190,000 (2021-2023).
- 66. **Huntington**, J.L., and C. Pearson. (2021). Collaborative ET Demands Model Application and Training in the Upper Colorado River Basin. U.S. Bureau of Reclamation, \$100,000 (2021-2022).
- 65. **Huntington**, J.L., Daudert, B., C. Morton, and J. Hansen (2020). OpenET. Windward, **\$648,604** (2020-2021).
- 64. **Huntington**, J.L., Pearson, C., Daudert, B., and J. Hansen (2020). Operational Open Water Evaporation Estimates for the Western U.S. U.S. Bureau of Reclamation, \$499,799 (2020-2024).
- 63. **Huntington**, J.L., Morton, C., Daudert, B., McEvoy, D., and J. Hansen. (2020). Climate Adaptation and Mitigation Program NV DEWS. National Oceanic and Atmospheric Administration, \$489,999 (2020-2021).
- 62. **Huntington**, J.L., Pearson, C., and M. Bromley. (2020). Agricultural Consumptive Use and Open Water Evaporation Monitoring to Support Demand Management and Water Accounting in the Upper Colorado River Basin with OpenET. Upper Colorado River Commission, \$210,000 (2020-2023).
- 61. **Huntington**, J.L., Morton, C.M., Hansen, J., J. Volk. (2020). Enhancement of OpenET to Integrate Operational Satellite-based Evapotranspiration Data with USGS National Scale Hydrologic Modeling and Water Use Assessments. U.S. Geological Survey, \$150,000 (2020-2022).
- 60. **Huntington**, J.L., Morton, C.M., Minor, B., and M. Bromley. (2020). Development and Use of Agricultural Field Boundaries and OpenET Data to Support the Oregon Irrigation Consumptive Water Use Project. Oregon Water Resources Department, \$109,823 (2020-2022).
- 59. **Huntington**, J.L., McEvoy, D., Daudert, B., and C. Morton. (2020). Expansion of DEWS Activities Through the Development of New Technologies to Improve Processing Speeds, Access and Visualization of Drought Metrics, Impacts, and Forecasts. National Oceanic and Atmospheric Administration, \$149,992 (2020-2021).
- 58. **Huntington**, J.L., McEvoy, D., Daudert, B., and C. Morton. (2020). Expansion of DEWS Activities Through the Development of New Subseasonal Forecasts of Evaporative Demand and Fire Danger Indices. National Oceanic and Atmospheric Administration, \$179,945 (2020-2021).
- 57. **Huntington**, J.L., and C. Pearson. (2020). Collaborative ET Demands Model Application and Training in the Upper Colorado River Basin. U.S. Bureau of Reclamation, \$70,124 (2020-2021).
- 56. **Huntington**, J.L., and C. Pearson. (2020). Collaborative ET Demands Model Application and Training in the Upper Colorado River Basin. U.S. Bureau of Reclamation, \$22,708 (2020-2021).

- 55. **Huntington**, J.L., Daudert, B., J. Hansen (2020). Climate and Remote Sensing Applications for Advanced Rangeland Monitoring, Process Understanding, and Decision Support, Bureau of Land Management (BLM). \$750,000 (2020-2025).
- 54. **Huntington**, J.L., Pearson, C., Daudert, B., and J. Hansen (2020). Operational Open Water Evaporation Estimates for the Western U.S., U.S. Bureau of Reclamation. \$499,799 (2020-2024).
- 53. **Huntington**, J.L. and C. Pearson (2020). Agricultural Consumptive Use and Open Water Evaporation Monitoring to Support Demand Management and Water Accounting in the Upper Colorado River Basin with OpenET, Upper Colorado River Commission. **\$288,256** (2020-2023).
- 52. **Huntington**, J.L., C. Morton, M. Bromley. (2020) Enhancement of OpenET to Integrate Operational Satellite-based Evapotranspiration Data with USGS National Scale Hydrologic Modeling and Water Use Assessments, U.S. Geological Survey. **\$150,000** (2020-2022).
- 51. **Huntington**, J.L., C. Morton, M. Bromley. (2020). Developing Water Use Estimates for the State of Oregon, U.S. Geological Survey. **\$112,000** (2020-2022).
- 50. **Huntington**, J.L., C. Morton, C. Pearson. (2020). Agricultural Consumptive Use and Open Water Evaporation Monitoring to Support Demand Management and Water Accounting in the Upper Colorado River Basin with OpenET, **\$288,256** (2020-2022).
- 49. **Huntington**, J.L., Daudert, B., D. McEvoy, and J. Hansen (2019). Expansion of Drought Early Warning System Activities Through the Development of New Technologies to Improve Processing Speeds, Access and Visualization of Drought Metrics, Impacts, and Forecasts. National Oceanic and Atmospheric Administration. **\$845,992** (2019-2023).
- 48. **Huntington**, J.L., and R. Jasoni. (2019). Towards Sustainable Groundwater Management Monitoring. Harney Watershed Council. **\$148,000.** (2019-2022).
- 47. **Huntington**, J.L. and B Daudert (2018). Collaboration on the Navajo Nation Drought Severity Evaluation Tool (DSET). Bay Area Environmental Research Institute (BAERI). **\$174,874 (2018-2021)**.
- 46. **Huntington**, J.L. (2018). Spatiotemporal Analysis of Groundwater Dependent Ecosystem Vegetation Vigor for Malheur Lake. The Nature Conservancy. **\$34,767 (2018-2021)**.
- 45. Daudert, B., and J.L. **Huntington**. (2018). Climate Reference Network Web Visualization and Processing with Climate Engine. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. \$73,585 (2018-2020).
- 44. **Huntington**, J.L. (2018). Identifying Key Riparian Habitat Supporting Sage Grouse and Listed Species in Priority Nevada Basins. Department of Interior, U.S. Fish and Wildlife Service. **\$91,001 (2018-2021)**.
- 43. Pearson, C., and J.L. **Huntington**. (2018). Towards Operational Remote Sensing for Lake Tahoe Near-shore Monitoring. State of Nevada Division of State Lands. **\$51,376** (2018-2020).
- 42. Pearson, C., and J.L. **Huntington**. (2018). Lake Powell Evaporation Monitoring. U.S. Bureau of Reclamation. **\$354,326** (2018-2021).
- 41. **Huntington**, J.L., Morton, C., and D. McEvoy (2017). USGS Landsat Science Team. Solicited Proposal Towards the Integration of Landsat and Climate Data for Enhanced Water and Land Management Decision Support. **\$1,255,132** (2018-2023).
- 40. Festa, D., Melton F., and J.L. **Huntington**. (2017). S.D. Bechtel Jr. Foundation, Moore Foundation, Wallace Foundation. Unsolicited Proposal OpenET: Enabling Data-driven

- Decision Making for Coordinated Sustainable Land and Water Management, \$4,500,000 (\$1.2M to DRI Jan. 2018-Jan. 2023).
- 39. Pearson, C. and J.L **Huntington** (2017). Bureau of Reclamation. Unsolicited Proposal Insitu Evaporation Monitoring at Lake Powell, Utah/Arizona, **\$399,998** (2017-2020).
- 38. Bromley, M. and J.L. **Huntington** (2017). Nevada Department of Agriculture. Unsolicited Proposal Nevada Drought and Water Use Monitoring. **\$243,9400** (2017-2020).
- 37. **Huntington**, J.L., Johnson, L., Morton, C., Guzman A., Allen, R., Sullivan, A., Miller, C., Kramber, W., Stahr, K., and B. Vanderburgh. (2016). NASA-ROSES. Solicited Proposal Operational Remote Sensing of Agricultural Water Use in Cooperation with Western State Water Resource Agencies for Improved Water Management, \$1,290,902 (2017-2020).
- 36. **Huntington**, J.L., and C. Morton. (2017). U.S. Bureau of Reclamation. Solicited Proposal West-wide Evapotranspiration Forecast (WwET4Cast) Network Project Support, **\$19,911 (2017-2018)**.
- 35. **Huntington**, J.L., and C. Morton. (2017). Collaborative ET-Demands Model Application and Training in the Upper Colorado River Basin, submitted to the U.S. Bureau of Reclamation. **\$71,921 (2017-2018)**.
- 34. **Huntington**, J.L., and C. Morton. (2017). Spatiotemporal Mapping of Phreatophyte Vegetation for Selected Areas in Nevada, submitted to The Nature Conservancy. **\$20,00** (2017-2018).
- 33. 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).
- 32. **Huntington**, J.L., and Morton, C. (2016). U.S. Bureau of Reclamation. Unsolicited Proposal Collaborative Evapotranspiration Demands Model Enhancement, Implementation, and Documentation, \$87,407 (2016-2017).
- 31. **Huntington**, J.L., Morton, C., Daudert, B. (2016). California Landscape Conservation Cooperative. Solicited Proposal Decision support for meadow conservation and restoration in the Sierra Nevada Ecoregion, \$74,954 (2016-2017).
- 30. **Huntington**, J.L., and Morton, C. (2016). Google. Solicited Proposal Advance EEFlux Algorithms and Evapotranspiration Products in Earth Engine, **\$61,339** (2016-2017).
- 21. Jasoni, R., **Huntington**, J.L., Lyles, B., Arnone, J., and J. Larsen. (2016). Oakdale Irrigation District. Unsolicited Proposal Technical Support for Quantifying ET for Crops within the OID as part of the On-Farm Conservation Program. **\$189,257** (2016-2018).
- 29. **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)**.
- 28. **Huntington**, J.L., and C. Morton. (2015). Nevada Division of Water Resources. Unsolicited Proposal Historical Phreatophyte Evapotranspiration and Groundwater Discharge for the Humboldt River Basin, \$163,839 (2016-2018).
- 27. **Huntington**, J.L., and C. Morton. (2015). U.S. Geological Survey, Great Basin CESU. Solicited Proposal Drought Monitoring and Fallow Field Tracking Through Cloud Computing of Landsat, MODIS, and Gridded Climate Data Archives, \$269, 836 (2015-2017).
- 26. **Huntington**, J.L. and C. Morton. (2015). The Nature Conservancy. Unsolicited Proposal Remotely Sensed Evapotranspiration from Groundwater Discharge Areas of the

- Amargosa River, Nevada, \$37,500 (2015-2017).
- 25. **Huntington,** J.L. and C. Morton. (2015). California State University, Monterey Bay. Unsolicited Proposal Implementation of Automated METRIC Algorithms on the NEX for Operational Evapotranspiration Monitoring in the Central Valley and Colorado River Basin, **\$49,997** (2015-2017).
- 24. **Huntington**, J.L., and C. Morton. (2015). Nevada Division of Environmental Protection. Solicited Proposal Feasibility of Remote Sensing for Nearshore Water Quality Monitoring of Lake Tahoe, \$44,935 (2016-2019).
- 23. **Huntington**, J.L., and C. Morton (2014). U.S. Geological Survey, Great Basin CESU. Solicited Proposal Development of Landsat and Climate Products to Assist in Multi-Temporal Climate and Vegetation Monitoring in the Sierra Nevada and Great Basin Ecoregions, \$20,000 (2015-2016).
- 22. **Huntington**, J.L., and C. Morton (2014). Google. Solicited Proposal Advance EEFlux Algorithms and Evapotranspiration Products in Earth Engine, \$99,000 (2014-2017).
- 21. **Huntington**, J.L., and C. Morton (2014). Maki Endowment. Solicited Proposal Cloud Computing Applications for Monitoring Groundwater Dependent Vegetation in Southern and Eastern Nevada, \$124,022 (2014-2016).
- 20. **Huntington**, J.L., and C. Morton (2014). Barrick Mines. Unsolicited Proposal Historical Evapotranspiration and Groundwater Discharge for Crescent, Grass, and Pine Valley Hydrographic Areas, Nevada, \$128,127 (2014-2016).
- 19. **Huntington**, J.L., and C. Morton (2014). U.S. Geological Survey, Unsolicited Proposal Remote Sensing of Evapotranspiration to Evaluate Huisache Brush Removal, McFaddin, TX, \$172,810 (2014-2019).
- 18. Watt, A., L. Fenstermaker, and J.L. **Huntington** (2014). Knowledge Fund Partnership for Research to Open Markets for an Emerging Technology: Helping to Expand Unmanned Systems (PROMETHEUS) in Nevada, \$166,995 (2015-2016).
- 17. Acharya, K., and J.L. **Huntington** (2014). National Park Service. Unsolicited Proposal Developing a Rapid Response Tool for Detecting Algae using Landsat Imagery, \$64,663 (2014-2016).
- 16. **Huntington**, J.L, and J. Abatzoglou. (2014). Google. Solicited Proposal A Google Earth Engine Application for Computing and Visualizing Drought Indices at Different Timescales in Near Real Time, \$140,000 (2014-2017).
- 15. Pohll, G., **Huntington**, J.L., and M. Reeves. (2014). NSF/USDA. Solicited Proposal Water Sustainability in Snow-Fed Arid Land River Systems, **\$700,000 (2014-2017)**.
- 14. **Huntington**, J.L., McGwire, K., Morton, C. (2013). BLM. Great Basin CESU, Solicited Proposal Mapping Riparian Vegetation and Water Use Changes in Nevada using the Landsat Archive, \$900,000 (2013-2018).
- 13. **Huntington**, J.L., Carroll, R. (2013). Agricultural Research Service. Unsolicited Proposal Integrated Modeling to Aid in Understanding Water Budget Changes from Pinyon-Juniper Encroachment, Porter Canyon, Nevada, \$60,000 (2014-2016).
- 12. **Huntington,** J.L., and C. Morton (2013). University of Texas, Austin. Solicited Proposal Estimating Consumptive Water Use with Remote Sensing Technologies: A Feasibility Study for Texas, \$96,000 (2014-2016).
- 11. **Huntington,** J.L., and C. Morton. (2013). Barrick Gold Corporation. Unsolicited Proposal Remotely Sensing Changes in Evapotranspiration from the Green, Knob, and Sand Dune Spring Complex and Down Gradient Groundwater Discharge Areas, Boulder Flat

- Hydrographic Area, Nevada, \$66,869 (2013-2015).
- 10. **Huntington,** J.L., and C. Morton. (2013). Southern Nevada Water Authority. Unsolicited Proposal Analysis of the Evapotranspiration along the Muddy River, Including the Warm Springs Natural Area, Nevada, \$70,000 (2013-2014).
- 9. Allen, R., Kilic, A., **Huntington**, J.L. (2013). Google. Solicited Proposal Implementation of the EEFlux/METRIC Algorithms into the Google Earth Engine for Computation of Water Consumption, \$150,000 (\$50,000 to NSHE, 2013-2017).
- 8. **Huntington,** J.L., and T. Mihevc (2013). U.S. Bureau of Reclamation. Solicited Proposal Improved Estimation of Reservoir Evaporation, \$248,696 (2012-2015).
- 7. Allen, R., Kilic, A., **Huntington**, J.L. (2012). U.S. Geological Survey, Landsat Science Team 2012-2017. Solicited Proposal Developing and Enhancing Landsat Derived Evapotranspiration and Surface Energy Products: 2012-2017 Landsat Science Team, \$1,000,000 (\$333,300 to NSHE, 2012-2017).
- 6. **Huntington**, J.L. (2012). NSF NASA EPSCoR. Solicited Proposal Towards Developing Automated Remotely Sensed Energy Balance Fluxes in the Central Valley, \$50,000 (2012-2014).
- 5. **Huntington**, J.L. and C. Morton. (2012). Desert Research Institute's Maki Endowment. Solicited Proposal Development of a Southern Nevada Evapotranspiration Monitoring Program using Remote Sensing, \$150,000 (2012-2015).
- 4. **Huntington**, J.L. and R. Allen. (2011). U.S. Bureau of Reclamation, Climate Analysis Tools Water SMART Program. Solicited Proposal Developing Historical and Future Agricultural Evapotranspiration and Irrigation Water Requirements for U.S. Bureau of Reclamation projects, \$200,000 (2011-2015).
- 3. **Huntington**, J.L. (2011). U.S. Bureau of Reclamation. Unsolicited Proposal Numerical Modeling for Water Demands Under Climate Change, **\$280,000** (2011-2014).
- 2. **Huntington**, J.L. and T. Mihevc (2011). Desert Research Institute Seed Grant. Solicited Proposal Towards the Development of a Reservoir Meteorological Network to Estimate Evaporation, \$50,000 (2011-2012).
- 1. **Huntington**, J.L. (2010). U.S. Bureau of Reclamation and U.S. District Court Water Master. Unsolicited Proposal Estimating Open Water Evaporation from Truckee Reservoirs Using Generalized Input Variables, \$75,000 (2010-2011).

# INVITED ORAL PRESENTATIONS

- 37. **Huntington**, J.L. Erickson, T., Harring, J., and F. Melton. (2021). Multi-source Earth Observation Data and FAIR Data Principles for Improved Natural Resource Management and Decision Making. AGU Fall Meeting.
- 36. **Huntington**, J.L. (2021). Delivering Place-based Drought and Water Insights and Early Warning. Science Powering Supply Chain Analysis. Google Geo for Good Summit, November, 2021.
- 35. **Huntington**, J. L. (2020). Towards Operational Applications of Climate Engine. Google Geo for Good Summit, October, 2020.
- 34. **Huntington**, J. L., Hegewisch, K., Daudert, B., Morton, C., Abatzoglou, J. T., McEvoy, D. J., Erickson, T. (2019). Combining On-demand Processing of Climate and Satellite Data via ClimateEngine.org for Advanced Drought and Natural Resource Monitoring, and Process Understanding in Arid Environments, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019.

- 33. Huntington, J. L., Johnson, L., Morton, C., Guzman, A., Daudert, B., Hansen, J., Bromley, M., Pearson, C., Melton, F. S. (2019). Operational Remote Sensing of Agricultural Water Use in Cooperation with Western State Water Resource Agencies for Improved Water Management, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019.
- 32. **Huntington**, J., Morton, C., McGwire, K., McEvoy, D., S. Peterson, and K. Snyder. (2018). Groundwater Dependent Ecosystem Connections to Hydrometeorology and Management in Arid Environments. American Meteorological Society, 32<sup>nd</sup> Conference on Hydrology, Austin, Texas.
- 31. **Huntington**, J.L. (2017). Evaporation and Evaporative Demand. Public Policy Institute for Center for Water Policy, Droughts of the Future Workshop, Bechtel Conference Center, PPIC, San Francisco, CA, April 20.
- 30. **Huntington**, J.L. (2017). Monitoring Drought and Groundwater Dependent Ecosystems in the Cloud. From Archives to Answers. Seminar Series, University of Texas, Austin, Jackson School of Geosciences, Austin, Texas, April 28.
- 29. **Huntington**, J.L. (2017). Observed Changes in Vegetation and Spring-Summer Outlook. California-Nevada Climate Application Program Webinar. March, 2017.
- 28. **Huntington**, J.L., et al. (2017). Monitoring Drought and Groundwater Dependent Ecosystems in the Cloud. From Archives to Answers. Webinar for the Nevada Water Resources Association, Reno, March 28.
- 27. **Huntington**, J.L., et al. (2017). Monitoring Drought and Groundwater Dependent Ecosystems in the Cloud. From Archives to Answers. National webinar for The Nature Conservancy, Reno, January 18.
- 26. McEvoy, D. J., **Huntington**, J. L. (2017). Cloud Computing of Satellite and Gridded Climate Data: From Archives to Answers, Colorado River Hydrology Research Symposium: Las Vegas, Nevada, May 22, 2017.
- 25. **Huntington**, J.L., et al. (2016). Monitoring Drought, Evaporative Demand, and Groundwater Dependent Ecosystems in the Cloud. From Archives to Answers. Presentation to the National Operations Center, Bureau of Land Management Assessment, Inventory, and Monitoring (AIM) Strategy team, Denver, Colorado, December 16.
- 24. **Huntington**, J.L, Daudert, B., Morton, C., McEvoy, D., Abatzoglou, J., Hegewisch, K., VanSant, D., Landsfeld, M., Husak, G., Verdin, and M., Friedrich, (2016). Monitoring Drought with Google Earth Engine: From Archives to Answers. Google Earth Engine User Summit, Mountain View, CA, June 14 16, Invited Plenary Speaker, https://goo.gl/8FOCMf
- 23. Carroll, R., **Huntington**, J.L., Lutz, A., Snyder, K., and R. Niswonger. (2015). Vegetation and Hydrologic Response to Climate in the Great Basin. American Geophysical Union 2015 Fall Conference, San Francisco, CA, December 14-18.
- 22. Snyder, K., Carroll, R., **Huntington**, J., and T. Stringham. (2015). Desatoya Mountains Project and the Porter Canyon Experimental Watershed. Envirolssues Inc. Great Basin Landscape Conservation Cooperative Webinar Series, November 10.
- 21. **Huntington**, J.L. et al. (2015). Drought Monitoring through Cloud Computing and Visualization of Remote Sensing and Meteorological Datasets. Consortium of Universities for the Advancement of Hydrologic Science, Inc (CUASHI) Webinar Series on The Western US Drought on the Ground and from Space: Combining in situ and remotely sensed data to understand and mitigate drought, October 16.

- 20. Morton, C.G. and J.L., **Huntington**. (2015). Cloud Computing of Remote Sensing and Climate Data. Remote Sensing Workshop, Tahoe Science Conference September 21 23, 2015.
- 19. **Huntington**, J.L. (2015). Drought Status and New Place Based Assessment Tools for Nevada. Governor's Drought Summit, Carson City, NV, September 21-23.
- 18. Drexler, J.Z., J.L., **Huntington**, R.G. Niswonger, and L. Flint. (2015). Montane Peatlands as Gauges for Drought and Climate Change in California. Tahoe Science Conference, September 22.
- 17. **Huntington**, J.L., Abatzoglou, J.T., Hegewisch, K.C., Daudert, B., Morton, C. \*VanSant, D. (2015). ClimateEngine.org: Cloud Computing and Visualization of Climate and Remote Sensing Data. International Workshop on Evapotranspiration Mapping for Water Security, World Bank, Washington D.C., September 15-17.
- 16. **Huntington**, J.L., Morton, C., McGwire, K, M., Bromley, 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. (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.
- 15. **Huntington**, J.L., Daudert, B., Morton, C., McEvoy, D., Joros, A., Abatzoglou, J., Hegewisch, K., Peterson, A., VanSant, D., Allen, R., Kilic, A., Hobbins, M., and J. Verdin. (2015). Cloud Computing for Drought Monitoring with Google Earth Engine. U.S. Drought Monitor Forum, Desert Research Institute, Reno, NV, April 14-16.
- 14. **Huntington**, J.L., Morton, C., McGwire, K., McEvoy, D., Niswonger, R., and S. Peterson. (2015). Groundwater Appropriation, Groundwater Dependent Ecosystems, and 3M Plans in the Great Basin. Great Basin Consortium, Boise, Idaho, February 17-19.
- 13. 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, ID, February 17-19.
- 12. \*McEvoy, D. J., Hobbins, T., **Huntington**, J. L., Wood, A. (2014). Tracking Flash Drought with Land-Atmospheric Feedbacks. American Meteorological Society Annual Meeting: Atlanta, GA, February 2-6.
- 11. **Huntington**, J.L. (2014). Drought Evolution and Landsat Monitoring Tools. Western Governors' Association Drought Forum, Las Vegas, NV, December 8-9.
- 10.\*McEvoy, D., M. Hobbins, J.L., **Huntington**, J. Mejia, C. Hain, M. Anderson, and J. 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, December 15-19.
- 9. Hegewisch. K, B. Daudert. A. \*Peterson, J. **Huntington**, J. Abatzoglou. (2014). Google Drought: Drought Monitoring Through Visualization of Remote Sensing and Observational Datasets. Google Hyperwall Presentation. American Geophysical Union Fall Meeting, San Francisco, CA.
- 8. **Huntington**, J.L. et al. (2014). Monitoring Groundwater Dependent Ecosystems and Agriculture in the Great Basin from Clouds and Space. New Mexico Institute of Mining and Technology Hydrology Colloquia, March 31.
- 7. **Huntington,** J.L, and R.G. Allen. (2013). Climate Change, Drought, and Potential Irrigation Challenges for Alfalfa. Western Alfalfa and Forage Symposium, Reno, NV, Dec. 11-13.

- 6. Niswonger, R.G., **Huntington**, J.L., Dettinger, M.D., Rajagopal, S., \*Gardner, M., Morton, C., Reeves, D., and G. Pohll, (2013). Multi-Scale Simulations of Past and Future Projections of Hydrology in Lake Tahoe Basin, California-Nevada. American Geophysical Union, Fall Meeting, San Francisco, CA, December 9-13.
- 5. **Huntington**, J.L., et al. (2012). Recent Applications for Estimating Crop Consumptive Use across the Western U.S. using Traditional and Remote Sensing Methods. U.S. Society for Irrigation and Drainage Annual Conference, Reno, NV, November 13-16.
- 4. **Huntington**, J.L., et al. (2012). Role of Surface and Groundwater Interactions on Streamflow and Evapotranspiration in the Great Basin. Great Basin Climate Forum, Desert Research Institute, October 17.
- 3. Niswonger, R. and J.L. **Huntington**. (2011). Effects of Climate-Induced Earlier Drainage on Watershed Fluxes in Snow Dominated Regions. American Geophysical Union 2011 Fall Conference. American Geophysical Union. San Francisco, CA.
- 2. \*Huntington, J.L., and R.G. Allen. (2011). Penman-Monteith Based ET Estimates for Irrigated Agriculture Historical and Future Periods. Climate Change and Agriculture Conference. Soil and Water Conservation Society, Nevada and California Chapter.
- 1. \*Huntington, J.L., and R.G. Niswonger. (2010). Climate Change Impacts to Watershed Hydrology using an Integrated Hydrologic Model. American Geophysical Union Fall Conference, American Geophysical Union. San Francisco, CA.

# ORAL PRESENTATION ABSTRACTS

- 102. Reitz, M., **Huntington**, J. L., Volk, J. M., Ott, T., Melton, F. S., Pearson, C., ... & Carrara, W. (2021). A machine learning approach to weighting the remotely sensed ET ensemble members of OpenET. AGU Fall Meeting 2021.
- 101. Volk, J. M., **Huntington**, J. L., Melton, F. S., Allen, R. G., Anderson, M., Dunkerly, C., ... & Yang, Y. (2021). OpenET Satellite-based ET Intercomparisons with Ground-based Measurements: Phase II Results. AGU Fall Meeting 2021.
- 100. Gao, H., **Huntington**, J., Pearson, C., Zhao, B., Zhao, G., Weinberg, A., ... & Fernando, N. (2021). Toward Monitoring Daily Reservoir Evaporation Losses for the State of Texas. In 101st American Meteorological Society Annual Meeting.
- 99. Rollison, D., Grimm, R., Melton, F. S., **Huntington**, J. L., Herring, J., Hall, M., ... & Yang, Y. (2020). OpenET: Enabling Science-Based Water Management through Open Data Services and User-Driven Design. AGU Fall Meeting.
- 98. Kilic, A., Allen, R. G., Blankenau, P., Revelle, P., Ozturk, D., & **Huntington**, J. (2021). Global production and free access to Landsat-scale Evapotranspiration with EEFlux and eeMETRIC. In 6th Decennial National Irrigation Symposium, 6-8, December 2021, San Diego, California. American Society of Agricultural and Biological Engineers.
- 97. Tulley, N., McCullum, A. J., McClellan, C., Daudert, B., **Huntington**, J. L., & Tulley-Cordova, C. (2020). The Drought Severity Evaluation Tool: A collaboration of Sovereignty and Science for the Navajo Nation. In AGU Fall Meeting Abstracts (Vol. 2020, pp. SY036-08).
- 96. Holman, K. D., Jasoni, R. L., Pearson, C., Broman, D., & **Huntington**, J. L. (2020). Estimating Open-Water Evaporation from Lake Powell. In AGU Fall Meeting Abstracts (Vol. 2020, pp. H021-02).
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- 93. 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
- 92. **Huntington** (2020). Methods, Limitations, and Uncertainties of Estimating Groundwater Discharge from Playas. Nevada Water Resources Association, Las Vegas, NV, February 10-13.
- 91. Ott, T., **Huntington**, J., Bromley, M., Morton, C., and Dunkerly, C. (2020). Using Remote Sensing Evapotranspiration Models to Estimate Historical Pumping in Diamond Valley. Nevada Water Resources Association, Las Vegas, NV, February 10-13.
- 90. Hausner, M. B., Pearson, C., Morton, C. G., **Huntington**, J. L. (2020). Using the Landsat archive and gridded climate data to assess restoration of mountain meadows, American Geophysical Union Fall Meeting: Online, December 1, 2020-December 17, 2020, EP039-0013
- 89. Pearson, C., **Huntington**, J. L., Jasoni, R. L., Lyles, B. F., Broman, D., Holman, K., Nowak, K. (2020). Improving Reservoir Evaporation Estimates for Enhanced Decision Support, 2020 NWRA Annual Conference: Las Vegas, NV, February 10, 2020-February 13, 2020
- 88. Pearson, C., **Huntington**, J. L., Jasoni, R. L., Lyles, B. F., Broman, D., Holman, K., Spears, J. M. (2020). In-situ Evaporation Monitoring at Lake Powell, BOR Reservoir Evaporation Research Workshop, September 25, 2020
- 87. Broman, D., Clifton, N., Pearson, C., Jasoni, R. L., **Huntington**, J. L. (2020). Estimating Open-Water Evaporation from Lake Powell, 2020 AGU Fall Meeting, December 1, 2020-December 17, 2020
- 86. Albano, C. M., Daudert, B., Hausner, M. B., McEvoy, D. J., McGwire, K. C., Minor, B. A., Morton, C. G., Pearson, C., **Huntington**, J. L. (2020). Assessing the Effects of Climate and Management on Meadow and Riparian Vegetation Using the Landsat Archive and Cloud Computing Tools and Applications, Society for Ecological Restoration California Chapter, September 1, 2020-September 24, 2020
- 85. Melton, F., **Huntington**, J. L., Grimm, R., Herring, J., Hall, M., Rollison, D., Erickson, T., Allen, R., Anderson, M., Blankenau, P., Bromley, M., Carrara, W., Daudert, B., Doherty, C., Dunkerly, C. W., Fisher, J., Friedrichs, M., Guzman, A., Hain, C., Halverson, G., Harding, J., Johnson, L., Kang, Y., Kilic, A., Mallory, M., Ortega-Salazar, S., Ott, T., Revelle, P., Ruhoff, A., Schull, M., Senay, G. B., Volk, J. M., Wang, T., Yang, Y. (2020). OpenET: Filling a Critical Gap in Water Data for the Western US, AGU: Virtual, December 1, 2020-December 17, 2020
- 84. Rollison, D., Grimm, R., Melton, F., **Huntington**, J. L., Herring, J., Hall, M., Erickson, T., Allen, R., Anderson, M., Blankenau, P., Bromley, M., Daudert, B., Doherty, C., Dunkerly, C. W., Fisher, J., Friedrichs, M., Guzman, A., Hain, C., Halverson, G., Hansen, J., Harding, J., Johnson, L., Kang, Y., Kilic, A., Malloy, M., Minor, B. A., Morton, C. G., Ortega-Salazar, S., Ott, T., Revelle, P., Ruhoff, A., Schull, M. A., Senay, G. B., Volk, J. M., Wang, T., Yang, Y. (2020). OpenET: Enabling Science-

- Based Water Management through Open Data Services and User-Driven Design, AGU: Virtual, December 1, 2020-December 17, 2020
- 83. Albano, C. M., Hausner, M. B., **Huntington**, J. L., McEvoy, D. J., McGwire, K. C. (2019). Using the Landsat Archive to Assess Multi-Decadal Changes in Riparian Vegetation in Western U.S. Drylands, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H43A-08.
- 82. Albano, C. M., Hausner, M. B., McEvoy, D. J., McGwire, K. C., **Huntington**, J. L. (2019). Assessing multi-decadal changes in riparian areas across Nevada using the Landsat archive, Geological Society of America Annual Meeting: Phoenix, AZ, September 22, 2019-September 25, 2019, 179-11.
- 81. Broman, D., Pearson, C., Holman, K. D., **Huntington**, J. L., Bearup, L. A. (2019). Assessment of In-Situ Open Water Evaporation Estimates in Support of Water Management, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H22B-04.
- 80. Bromley, M., **Huntington**, J. L., Morton, C. G. (2019). Remotely Sensed Estimates of Evapotranspiration for Cultivated Hemp in Nevada, Nevada Water Resources Association Annual Conference: Reno, NV, January 28, 2019-January 31, 2019
- 79. Carroll, R. W., Rybarski, S., **Huntington**, J. L., Bromley, M. (2019). Building basin-scale hydrologic models: data and numerically driven analysis for water management, U.S. Society for Irrigation and Drainage Professionals (USCID) 12th International Conference on Irrigation and Drainage: Reno, NV, November 7, 2019.
- 78. Dohlen, M., Fisher, J., Halverson, G. H., Collison, J., **Huntington**, J. L. (2019). Remotely sensed open water reservoir and lake evaporation, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H31L-1896.
- 77. Hausner, M. B., Albano, C. M., **Huntington**, J. L., Pearson, C. (2019). Using the Landsat Archive to Understand and Assess Changes in Mountain Meadow Vegetation, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. EP51E-2173.
- 76. Hausner, M. B., Albano, C. M., Pearson, C., **Huntington**, J. L. (2019). Assessing changes in mountain meadow condition using the Landsat archive, Geological Society of America Annual Meeting: Phoenix, AZ, September 22, 2019-September 25, 2019.
- 75. **Huntington**, J. L., McGwire, K. C., Pearson, C., Hausner, M. B., Albano, C. M., Minor, B. A., McEvoy, D. J., Morton, C. G. (2019). Assessing the role of climate and resource management on groundwater dependent ecosystem changes in arid environments with the Landsat archive and cloud computing, American Fisheries Society/The Wildlife Society Joint Meeting: Reno, NV, September 30, 2019-October 3, 2019, 8014-3.
- 74. Ketchum, D., Jencso, K., **Huntington**, J. L. (2019). High Resolution Irrigated Lands Mapping in the Western United States, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. B23B-05.
- 73. Kustas, W. P., Anderson, M., Hain, C., **Huntington**, J. L., Melton, F. S. (2019). Advances in Remote Sensing of Evapotranspiration, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H41D-03.
- 72. McCullum, A. K., McClellan, C., **Huntington**, J. L., Daudert, B. (2019). Drought characterization on the Navajo Nation via a web-based remote sensing tool, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H32F-07.

- 71. McCullum, A. K., McClellan, C., **Huntington**, J. L., Daudert, B. (2019). A partner-driven water resource management tool on the Navajo Nation, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. PA34A-09.
- 70. McEvoy, D. J., Hobbins, M., Brown, T. J., VanderMolen, K.A., Wall, T. U., **Huntington**, J. L., Svoboda, M. (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
- 69. McEvoy, D. J., **Huntington**, J. L., Daudert, B., Hegewisch, K., Morton, C. G., Abatzoglou, J. (2019). Climate Engine: On-Demand Cloud Computing and Visualization of Climate and Remote Sensing Data, American Water Works Association Sustainable Water Management Conference: Tucson, AZ, April 3, 2019.
- 68. McEvoy, D. J., **Huntington**, J. L., Daudert, B., Hegewisch, K., Morton, C. G., Abatzoglou, J. (2019). Climate Engine: On-Demand Cloud Computing and Visualization of Climate and Remote Sensing Data, Society for Range Management Winter Meeting and Emerging Technologies for both Ranchers and Agencies: Elko, NV, December 13, 2019-December 13, 2019.
- 67. Melton, F. S., Zaragosa, I., Guzman, A., Hang, M., Carrara, W., Doherty, C., Brito, J., **Huntington**, J. L. (2019). Remote Sensing of Drought Impacts on Agricultural Production and Fallowing of Agricultural Land in the Western U.S., AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. PA34A-10.
- 66. Pearson, C., Kuchnicki, J., Morton, C., **Huntington**, J. L., Pahlevan, N. (2019). Towards Operational Remote Sensing of Nearshore Water Quality, Lake Tahoe, USA, AGU Fall Meeting: San Francisco, CA, December 9, 2019-December 13, 2019, Presentation No. H31N-1939.
- 65. McEvoy, D., Wall, T., Brown, T., **Huntington**, J., Hobbins, M., and M. Svoboda. (2018). Establishing Relationships between Drought and Wildfire Danger Indices for Improved Wildfire Risk Management. American Meteorological Society, 32<sup>nd</sup> Conference on Hydrology, Austin, Texas.
- 64. McEvoy, D., Shukla, S., Hobbins, M., Husak, G., **Huntington**, J., Funk, C., Macharia, D., and J. Verdin. (2018). Examining the Value of Global Seasonal Reference Evapotranspiration Forecasts to Support FEEW NET's Food Insecurity Outlooks. American Meteorological Society, 32<sup>nd</sup> Conference on Hydrology, Austin, Texas.
- 63. **Huntington**, J.L, (2017). Recent Advances in Drought Monitoring with Cloud Computing. NIDIS California-Nevada Drought Early Warning System First Annual Coordination Workshop, June 21-22, Desert Research Institute, Reno, NV.
- 62. **Huntington,** J., Allen R., Morton, C., and L., Johnson (2017). ET using Remote Sensing and Gridded Weather Workshop for Eight Western States Water Agencies. Desert Research Institute, Reno, NV, Sept 12-15.
- 61. **Huntington**, J. et al. (2017). Monitoring Groundwater Dependent Ecosystem with Remote Sensing and Evaporative Demand Archives. Forest Service Workshop for Meadow Restoration, Jackson, CA, March 30, 2017.
- 60. Hobbins MT, McEvoy D, Wood A, and **Huntington** J (2017), The Evaporative Demand Drought Index (EDDI): a new drought monitoring and early warning tool. Universities Council on Water Resources / National Institutes for Water Resources Conference, Fort Collins, CO, 13-15 June.
- 59. Hobbins MT, Barsugli J, Dewes C, Huntington JL, Lukas J, McEvoy DJ, Morton C,

- Rangwala I, Ray A, and Yocum H (2017), The Evaporative Demand Drought Index (EDDI): an emerging drought-monitoring and early warning tool. US Drought Monitor Forum, Keystone, SD, 3-5 April.
- 58. Hobbins MT, Ray AJ, Yocum H, McEvoy D, **Huntington** J, Rangwala I, Dewes C, and Lukas J (2017), R2O of the Evaporative Demand Drought Index: the physical basis for a new early warning and monitoring index for drought and engagement with stakeholders. 15th Annual Climate Prediction Applications Science Workshop, Anchorage, AK, 2-4 May.
- 57. Hobbins, M.T., McEvoy, D.J., **Huntington**, .J.L, RayA.Yocum, H., Rangwala, I., Dewes, C., and Lukas, J. (2017). The Evaporative Demand Drought Index (EDDI): a new drought monitoring and early warning tool. American Meteorological Society Annual Meeting, Seattle, WA, 22-26 January.
- 56. Hobbins, M., Shukla, S., McNally, A., McEvoy, D., **Huntington**, J., Husak, F., Funk, C., Senay, G., Verdin, J., and T. Jansma. (2016). What role does evaporative demand play in driving drought in Africa? American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 55. Shukla, S., Hobbins, M., McEvoy, D., Husak, G, Dewes, C., McNally, A., **Huntington**, J., Funk, C., and J. Verdin. (2016). Monitoring and Forecasting Reference Evapotranspiration for Food Security Assessments. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 54. Landsfeld, M., Hegewisch, K., Daudert, B., Morton, C., Husak, G., Friedrichs, M., Funk, C., **Huntington**, J., Abatzoglou, J., and J. Verdin. (2016). Generating Southern Africa Precipitation Forecast Using the FEWS Engine, a New Application for the Google Earth Engine. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 53. **Huntington**, J. L., McEvoy, D. J., McCurdy, G. D., Lyles, B. F. (2016). NICE Net and Reference Evapotranspiration in Nevada, Western States Water Council Irrigation Management Information Systems Workshop: San Diego, CA, August 25, 2016
- 52. **Huntington**, J , Morton, C., Melton, F., Guzman, A., and R., Allen, (2016). Towards Development of a Complete Landsat Evapotranspiration and Energy Balance Archive to Support Agricultural Consumptive Water Use Reporting and Prediction in the Central Valley, California. Toward Sustainable Groundwater in Agriculture, 2<sup>nd</sup> International Conference Linking Science and Policy, June 28-30, San Francisco, California.
- 51. Melton, F., Guzman, A., Johnson, L., Morton, C., and J. **Huntington**, (2016). Operational Mapping of Evapotranspiration over Agricultural Land in the California Central Valley. Toward Sustainable Groundwater in Agriculture, 2<sup>nd</sup> International Conference Linking Science and Policy, June 28-30, San Francisco, California.
- 50. Hobbins, M., McEvoy, D., **Huntington**, J., Wood, A., Morton, C., Verdin, J., and R., Andrea, (2016). The Evaporative Demand Drought Index: a new drought early warning and monitoring index for drought and wildfire prediction. 14<sup>th</sup> Annual Climate Prediction Applications Science Workshop, Burlington, Vermont.
- 49. Hobbins, M., McEvoy, D., **Huntington**, J., Wood, A., Morton, C., and J. Verdin. (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 10-14.

- 48. Snyder, K., Carroll, R., **Huntington**, J., and T. Stringham. (2015). Desatoya Mountains Project and the Porter Canyon Experimental Watershed. Envirolssues Inc. Great Basin Landscape Conservation Cooperative Webinar Series, November 10.
- 47. Melton, F., **Huntington**, J., Guzman, A., Johnson, L., Morton, C., Nemani, R., Post, K., Rosevelt, C., Shupe, J., Spellenberg, R., and A., Vitale. (2015). Mapping Evapotranspiration over Agricultural Lands in the California Central Valley. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 46. McEvoy, D. J., **Huntington**, J.L., and M. T. Hobbins. (2015). Optimization of evaporative demand models for seasonal drought forecasts. American Geophysical Union 2015 Fall Conference, San Francisco, CA, December 14-18.
- 45. Vitale, A., Morton, C., **Huntington**, J.L., Melton, F.S., Guzman, A., 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.
- 44. Hobbins, M. T., McEvoy, D.J., **Huntington**, J.L., Wood, A.W., Morton, C., 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.
- 43. Hegewisch, K.C., Daudert, B., Morton, C. \*VanSant, D. **Huntington**, J.L, Abatzoglou, J.T. (2015). Climate Engine: Cloud Computing and Visualization of Climate and Remote Sensing Datasets. GIS Day, University of Idaho, Moscow, ID, November 18.
- 42. \*VanSant, D., K.C. Hegewisch, J.T. Abatzoglou, J.L. **Huntington**, B. Daudert, C. Morton. (2015). Climate Engine: Cloud computing for visualization and analysis of climate and remote sensing. 6th Annual Northwest Climate Science Conference, Coeur d'Alene, ID, November 3-5.
- 41. **Huntington**, J.L., C. Morton, K. McGwire, K. Hegewisch, B. Daudert, J. Abatzoglou, D. \*McEvoy, D. \*VanSant, R. Niswonter, S. Peterson. (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 7-9.
- 40. Carroll, R., **Huntington**, J.L., 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. Proceedings Paper, MODFLOW and More, Golden, Colorado, May 31-June3.
- 39. McEvoy, D., **Huntington**, J., and M. Hobbins. (2015). Analysis of the Relationship Between California Surface Water Deficits and the Evaporative Demand Drought Index. American Geophysical Union, Chapman Conference, Irvine, California, April 20-22.
- 38. Hobbins, M., McEvoy, D., **Huntington**, J., Wood, A., and J. Verdin. (2015). Monitoring the California Drought with a novel drought index: the Evaporative Demand Drought Index (EDDI). American Geophysical Union, Chapman Conference, Irvine, California, April 20-22.
- 37. Morton, C., **Huntington**, J., Melton, F., Guzman, A., and R. Allen. (2015). Implementation of Automated METRIC Algorithms on the NASA Earth Exchange for Rapid Consumptive Water Use and Drought Impact Mapping in California's Central Valley. American Geophysical Union, Chapman Conference, Irvine, California, April 20-22.

- 36. Hegewisch, K., Daudert, B., Morton, C., Peterson, A., Joros, A., McEvoy, D., Erickson, T., **Huntington**, J., and J. Abatzoglou. (2015). Google Drought Monitoring Through Cloud Computing and Visualization of Remote Sensing and Meteorological Datasets: Examples for California. American Geophysical Union, Chapman Conference, Irvine, California.
- 35. **Huntington**, J.L., C. Morton, K. McGwire, A. Joros, S. Peterson, N. Gorelick, D. Thau, and R. Allen. (2014). Cloud Computing of Landsat Imagery and Gridded Weather Data for Evaluating Groundwater Dependent Ecosystems in Nevada. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6.
- 34. Hobbins, M., D. McEvoy, J.L., **Huntington**, A. Wood, J. Verdin. (2014). Evaporative Demand Drought Index: The Physical Basis. American Geophysical Union 2014 Fall Conference, San Francisco, CA, December 15-19.
- 33. Rajagopal, S., R. Niswonger, J.L., **Huntington**, M. Gardner, C.G. Morton, S. Maples, D. Reeves, and G. Pohll. (2014). High Resolution Integrated Hydrologic Modeling for Water Resource Management: Tahoe Basin Case Study. American Geophysical Union 2014 Fall Conference, San Francisco, CA, December 15-19.
- 32. **Huntington**, J.L., C., Morton, M., Bromley, R., Liebert, T., Minor, and R., Allen. (2014). Landsat Water Use Mapping of Crop and Phreatophyte Areas in Nevada. Nevada Water Resources Association Fall Symposium, Reno, NV, October 15-16.
- 31. Rajagopal, S., J.L., **Huntington**, D.M., Reeves, C.G., Morton, and G. Pohll. (2014). Development and Calibration of Basin-Scale Watershed Models of the Upper Truckee for Assessment of Climate Change Impacts on Water Resources. Nevada Water Resources Association Fall Symposium, Reno, NV, October 15-16.
- 30. **Huntington**, J.L., Morton, C., McGwire, K., Allen, R., Gorelick, N., Thau, D., and A. Joros. (2014). Monitoring Groundwater Dependent Ecosystems in the Great Basin from Space and Clouds. American Water Resources Association Summer Specialty Conference, Reno, NV, June 30-July 2.
- 29. Rajagopal, S., J.L., **Huntington**, R., Niswonger, D., Reeves, C., Morton, M., Gardner, and G., Pohll. (2014). The Value of Integrated Hydrologic Modeling for Water Resource Management: Tahoe Basin case study. American Water Resources Association Summer Specialty Conference, Reno, NV, June 30-July 2.
- 28. **Huntington**, J.L., C. Morton, K. McGwire, A. Joros, S. Peterson, N. Gorelick, D. Thau, and R. Allen. (2014). Cloud Computing of Landsat Imagery and Gridded Weather Data for Evaluating Groundwater Dependent Ecosystems in Nevada. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6.
- 27. Allen, R., **Huntington**, J. L., Kilic, A., debruin, H., Joros, A. (2013). Conditioning of NLDAS, NARR and arid weather station data to improve their representation of well-watered (reference) environments associated with irrigated agriculture. American Meteorological Society Annual Meeting, Austin, TX, January 5-10.
- 26. **Huntington**, J.L., Mihvec, T., Allen, R., Spears, M., Rajagopal, S., Gangopadhyay, S., Eckhart, D. (2013). Development of a Reservoir Meteorological Network for Estimating Evaporation to Aid in Operations, Policies, and Procedures. American Meteorological Society Annual Meeting, Austin, TX, January 5-10.
- 25. Morton, C.M., **Huntington**, J.L., Minor, T., Allen, R., Melton, F. (2013). Towards Rapid and Accurate Remote Sensing of Evapotranspiration from Irrigated Lands with Landsat for Improved Hydrologic Modeling, Operations, and Procedures. Nevada Water Resources Association Annual Conference, Reno, NV, January 28-31.

- 24. Rajagopal, S., **Huntington**, J.L., Niswonger, R., Reeves, M., and Pohll, G. (2012). Quantifying Integrated Hydrologic Model Input and Parameter Uncertainty using Markov Chain Monte Carlo Simulations. American Geophysical Union Fall Conference, San Francisco, CA.
- 23. Carroll, R., Pohll, G., **Huntington**, J.L., and Morton, C. (2012). Calibrating Basin-Scale Groundwater Models to Remotely Sensed Estimates of Groundwater Evapotranspiration. American Geophysical Union Fall Conference, San Francisco, CA.
- 22. Morton, C., **Huntington**, J.L., Minor, T., Allen, R., and F. Melton. (2012). Improving the Efficiency of Operational ET Estimates using METRIC. Western States Evapotranspiration Workshop, Boise, ID, October 24-26.
- 21. **Huntington**, J.L., and \*D. 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.
- 20. **Huntington**, J.L., Morton, C. \*Gilbertson, L., Minor, T., Pohll, G., and R. Allen. (2012). Recent Applications Mapping Consumptive Use via Remote Sensing in Nevada. Nevada Water Resources Association Annual Conference, March 5-8, Las Vegas, NV.
- 19. **Huntington**, J.L., \*Morton, C., \*Beamer, J., Sullivan, A., Lyles, B., Allen, R., and G. Pohll. (2011). Estimating Evapotranspiration from Irrigated Agriculture and Groundwater Discharge Areas in Nevada using Remote Sensing and Weather Station Data. American Water Resources Association, Annual Water Resources Conference, Albuquerque, NM.
- 18. Sullivan, A. and J.L., **Huntington**. (2011). Remote Sensing of Consumptive Use in the Walker River Basin, Nevada. American Water Resources Association, 2011 Annual Water Resources Conference, Albuquerque, NM.
- 17. Allen, R., Irmak, A., **Huntington**, J.L., Trezza, R., Kjaersgaard, J., Hendrickx, J. (2011). Coping with Misbehaving Land-use Types (mountains, trees, desert, playas, open water) with METRIC and other Satellite-based Energy Balance Models. American Water Resources Association, 2011 Annual Water Resources Conference, Albuquerque, NM.
- 16. **Huntington**, J.L., \*Morton, C., \*MacCabe, S., and T. Minor. (2011). Development of a Web Service for Hydrologic and Environmental Monitoring in the Truckee River Basin: A Portal for Historical Remote Sensing Products. Nevada Water Resources Association Truckee River Symposium, Reno, Nevada, September 27-29.
- 15. \*McEvoy D., Edwards L.M., and J.L., Huntington. (2011). Utility of precipitation indices as indicators of drought in Nevada. 19th Conference on Applied Climatology/36th Annual Meeting of the American Association of State Climatologists and Practical Solutions for a Warming World: AMS Conference on Climate Adaptation, July 17-21). 2<sup>nd</sup> Place Student Oral Presentation.
- 14. Huntington, J.L., Sullivan, A., Minor, T., Mihevc, T., Lyles, B., McCurdy, G., Allen, R.G., Pohll, G.M., and J., Thomas. (2011). Towards Updating & Enhancing Existing Agricultural Consumptive Use & Basin Water Budgets throughout the State of Nevada. Nevada Water Resources Association Annual Conference, Nevada Water Resources Association. Reno, NV.
- 13. \*Hatchett, B.J., Mejia, J.F., **Huntington**, J.L., Koracin, D., and R., Niswonger. (2011). Evaluation of three climate downscaling techniques in forcing a coupled hydrological model in a snow-dominated watershed in the Lake Tahoe basin. 91st American Meteorological Society Meeting, American Meteorological Society. Seattle, WA.

- 12. \*Huntington, J.L., Allen, R.G., Kjaersgaard, J., and R., Trezza. (2010). Challenges in Creating Landsat resolution ET Information for All Land Uses in Desert and Agriculture Examples with METRIC. The USBR-Alliance University Applied Remote Sensing of Evapotranspiration Conference, The USBR-Alliance University, Las Vegas, NV.
- 11. Paul, R., and J.L., \*Huntington. (2010). Assessment of Remote Sensing Techniques for the Characterization of Lake and Reservoir Clarity. Nevada Water Resources Association 2010 Annual Conference, Nevada Water Resources Association. Las Vegas, NV.
- 10. \*Huntington, J.L., and R.G., Allen. (2010). Evapotranspiration and Net Irrigation Water Requirements for Nevada. Nevada Water Resources Association 2010 Annual Conference, Nevada Water Resources Association. Las Vegas, NV.
- 9. \*Huntington, J.L., R.G., Allen. (2009). Evapotranspiration and Net Irrigation Water Requirements for Nevada. World Environmental and Water Resources Congress 2009. American Society of Civil Engineers, Environmental and Water Resources Institute, Kansas City, KS.
- 8. Reeves, D.M., \*Humphrey, S., Pohll, G., Oppliger, G., and J.L., \***Huntington**. (2009). Evaluation of parametric uncertainty on drawdown predictions from the interbasin groundwater transfer at Honey Lake Valley, Nevada. Nevada Water Resource Association Annual Conference, Reno, NV.
- 7. Flint L., Flint, L., and J.L. \*Huntington. (2008). Regional evaluation of changes in potential evapotranspiration under a changing climate and influences on recharge and runoff. Computational Methods in Water Resources, 17th International Conference, July 6-10, San Francisco, CA.
- 6. Boyle, D., \*Huntingiton, J.L., Toll, D., Bowser, S., Frevert, D., Stodt, R., Clark, D., Arsenault, K.R., and A. Pinhero. (2006). Improving US Bureau of Reclamation Water Supply, Demand Monitoring and Forecasting Using NASA Earth Data Products for the Carson and Truckee River Basins. American Meteorology Society 86th Annual Meeting, Jan. 29 Feb. 2, 2006, Atlanta, GA.
- 5. \*Huntington, J.L., Boyle, D.P., Lamorey, G.W., Bassett, S.D., and D., Toll. (2006). Toward improving streamflow simulation in the Truckee River basin using MODIS fractional snow cover information. Nevada Water Resource Association Annual Conference, Mesquite, NV.
- 4. \*Epstein, B., \***Huntington**, J.L., and G. Pohll. (2004). Quantification of the Uncertainty Associated with Precipitation and Recharge Estimates of Desert Basins in Nevada. American Geophysical Union, Hydrology Days Meeting, March 10-12, Fort Collins, CO.
- 3. Pohll, G.M., Berger, D., \*Huntington, J.L., and B., Epstein. (2004). Quantification of the errors associated with recharge estimates to desert basins in Nevada. Nevada Water Resource Association, Mesquite, NV.
- 2. \*Huntington, J.L., and J. McNamara. (2004). Estimation and Validation of Fractional Snow Cover on Mauna Kea and Mauna Loa, Hawaii. American Geophysical Union, Western Pacific Geophysical Meeting, August 16-20, Honolulu, HI.
- 1. \*Huntington, J.L. (2002). Applications of Remote Sensing for Water Resource Investigations. Oregon State University Conference on Advances in GIS Relating to Water Resource Issues, May 5-7, Ontario, OR.

## POSTER PRESENTATIONS ABSTRACTS

- 59. Friedrichs, M., Morton, C., Senay, G., **Huntington**, J., Verdin, J. (2017). Using Google Earth Engine to Map Water use and Availability. PECORA Remote Sensing Symposium, Sioux Falls, SD.
- 58. Melton, F., Johnson, L., Guzman, A., **Huntington**, J., et al. (2017). Applications of Satellite Data to Support Improvements in Irrigation and Groundwater Management in California. American Geophysical Union Fall Meeting, New Orleans, LA.
- 57. Gardner, M., Morton, C., **Huntington**, J., Niswonger, R., Henson, W. (2017). Gsflow-Arcpy: An integrated hydrologic model development tool. American Geophysical Union Fall Meeting, New Orleans, LA.
- 56. Friedrichs, M., Morton, C., Senay, G., **Huntington**, J., Verdin, J. (2017). Towards Largearea Field-scale Operational Evapotranspiration for Water Use Mapping. American Geophysical Union Fall Meeting, New Orleans, LA.
- 55. Volk, J., Turner, M., **Huntington**, J., Gardner, M., Tyler, S., and L. Sheneman. (2016). Parameter optimization of a hydrologic model in a snow-dominated basin using a modular Python framework. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 54. Hegewisch, K., Daudert, B., Morton, C., McEvoy, D., **Huntington**, J., and J. Abatzoglou. (2016). Climate Engine Monitoring Drought with Google Earth Engine. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 53. Hausner, M., McEvoy, D., Morton, C., Smith, G., Fesenmyer, K., and J.L. **Huntington**. (2016). Evaluating the effect of restoration practices on riparian vegetation using remote sensing data. American Geophysical Union Fall Meeting, San Francisco, CA, December 12-16, 2016.
- 52. Sheffield, A., Marrs, A., Wall, T., Cayan, D., Kalansky, J., Redmond, K., **Huntington**, J., and D. McEvoy. (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 12-16, 2016.
- 51. Rajagopal, S., **Huntington**, J.L., Niswonger, R., Morton, C., Gardner, M., and M.Reeves. (2015). The Interplay of Snow, Surface water, and groundwater Reservoirs for Integrated Water Resources Management. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 50. Landsfeld, M., Daudert, B., Friedrich, M., Morton, C., Hegewisch, K., Husak, G., Funk, C., Peterson, P., **Huntington**, J., Abatzoglou, J., and J. Verdin. (2015). An Agro-Climatological Early Warning Tool Based on the Google Earth Engine to Support Regional Food Security Analysis. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 49. Melton, F., **Huntington**, J., Guzman, A., Johnson, L., Morton, C., Nemani, R., Post, K., Rosevelt, C., Shupe, J., Spellenberg, R., and A., Vitale. (2015). Mapping Evapotranspiration over Agricultural Lands in the California Central Valley. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 48. McEvoy, D. J., **Huntington**, J.L., and M. T. Hobbins. (2015). Optimization of evaporative demand models for seasonal drought forecasts. American Geophysical Union 2015 Fall Conference, San Francisco, CA, December 14-18.
- 47. Rajagopal, S., **Huntington**, J.L., Niswonger, R., Morton, C., \*Gardner, M., and M.Reeves.

- (2015). The Interplay of Snow, Surface water, and groundwater Reservoirs for Integrated Water Resources Management. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 46. Landsfeld, M., Daudert, B., Friedrich, M., Morton, C., Hegewisch, K., Husak, G., Funk, C., Peterson, P., **Huntington**, J., Abatzoglou, J., and J. Verdin. (2015). An Agro-Climatological Early Warning Tool Based on the Google Earth Engine to Support Regional Food Security Analysis. American Geophysical Union, Fall Meeting, San Francisco, CA, December 14-18.
- 45. \*McEvoy, D. J., **Huntington**, J.L., 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.
- 44. Hobbins, M. T., \*McEvoy, D.J., **Huntington**, J.L., Wood, A.W., and J.P. Verdin. (2015). Monitoring the California Drought with a novel drought index: the Evaporative Demand Drought Index (EDDI). American Geophysical Union Chapman Conference: California Drought: Causes, Impacts, and Policy. April 20-22.
- 43. Morton, C., J.L. **Huntington**, F.S. Melton, A. Guzman, and R.G. Allen. (2015). Implementation of Automated METRIC Algorithms on the NASA Earth Exchange for Rapid Consumptive Water Use and Drought Impact Mapping in California's Central Valley. American Geophysical Union Chapman Conference, Irvine, CA, April 20-22.
- 42. Hegewisch, K., B. Daudert, C. Morton, A. Peterson, A. Joros, D. McEvoy, T. Erickson, J.L. **Huntington**, and J.T. Abatzoglou, (2015). Google Drought Monitoring Through Cloud Computing and Visualization of Remote Sensing and Meteorological Datasets: Examples for California. American Geophysical Union Chapman Conf., Irvine, CA, April 20-22.
- 41. \*McEvoy, D., M. Hobbins, J.L., **Huntington**, J. Mejia, C. Hain, M. Anderson, and J. Verdin. (2015). Exploring the use of physically based evaporative demand anomalies to improve seasonal drought prediction. Nevada Water Resources Association. **2nd**<sup>st</sup> **Place Student Poster.**
- 40. Carroll, R., **Huntington**, J., Guoping, T., 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, Idaho, February 17-19.
- 39. McGwire, K., **Huntington**, J., Morton, C., Peterson, S., and M. Schade, (2015). The BLM Riparian Toolbar: An ArcMap Plugin for Regional Analysis of Vegetation Response. Great Basin Consortium, Boise, Idaho, February 17-19.
- 38. \*Sterle K., Simpson, K., McCarthy, M., Pohll, G., Kauneckis, D., Singletary, L., Niswonger, R., Rajagopal, S., Dettinger, M., **Huntington**, J., and S. Emm, (2015). Enhancing Resiliency of Snow-Fed Arid Land River Systems: A Collaborative Modeling Approach. Great Basin Consortium, Boise, Idaho, February 17-19.
- 37. \*Liebert, R., **Huntington**, J.L., and C. Morton. (2014). Estimating Open Water Evaporation for Lake Mead with Remote Sensing. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6. 1st Place Student Poster.
- 36. \*\*Dunkerly, C., \*\*Chapman, A., and J.L., **Huntington**. (2014). Examining Aridity-Induced Bias in Reference Evapotranspiration Calculations for Agriculture. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6.
- 35. \*Bromley, M., Morton, C., Huntington, J.L., Minor, T., and T. Albright. (2014). Analyzing

- Differences in Crop ET During Wet and Dry Years in the Walker Basin Using Remotely Sensed Data. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6.
- 34. \*Wagner, K., Swanson, S., McMahon, A., **Huntington**, J.L., and R.G. Niswonger. (2014). Groundwater and Surface Water Interactions at Pond and Plug Restoration Sites in the Northern Sierra Nevada Mountain Range. Nevada Water Resources Association Annual Conference, Las Vegas, NV, February 3-6.
- 33. **Huntington**, J.L, Morton, C., McGwire, K., Joros, A., Peterson, S., Gorelick, N., Thau, D., and R. Allen (2013). Utilizing Cloud Computing of Landsat Imagery and Gridded Weather Data for Evaluating Groundwater Dependent Ecosystems in Nevada. Great Basin Consortium Conference, Reno, NV, December 9-10.
- 32. **Huntington**, J.L., \*\*Dunkerly, C., \*\*Chapman, A., McCurdy, G., Wolff, AJ., Lyles, B., and R. Allen (2013). Highlights from the Nevada Integrated Climate and Evapotranspiration Network NICE Net. Great Basin Consortium Conference, Reno, NV, December 9-10.
- 31. **Huntington**, J.L., Szilagyi, J., Tyler, S., and G., Pohll. (2013). Evaluating the Complementary Relationship for Estimating Evapotranspiration from Arid Shrublands. American Meteorological Society Annual Meeting, Austin, TX, January 5-10.
- 30. \*McEvoy, D., **Huntington**, J.L., and J., Abatzoglou. (2013). A Comparison of the Standardized Precipitation Evapotranspiration Index Using Thronthwaite and Penman-Monteith Parameterizations for Potential Evapotranspiration. American Meteorological Society Annual Meeting, Austin, TX, January 5-10.
- 29. \*Sauceda, D., Mejia, J., and J.L., **Huntington**. (2013). Vulnerability and Resilience of Urban Water Systems under UncertainClimate Change Scenarios. American Meteorological Society Annual Meeting, Austin, TX, January 5-10.
- 28. **Huntington**, J.L., Morton, C., McGraw, D., and G., Pohll. (2013). Remote Sensing of Evapotranspiration for Groundwater Recharge Estimation from Irrigated Lands. Nevada Water Resources Association Annual Conference, January 28-31, Reno, NV.
- 27. Reeves, D.M., J. Huntington, S. Rajagopal, R. Niswonger, M. Gardner, Y. Zhang, and G. Pohll, (2013). Development of integrated surface water ground water models of Martis Valley and Lake Tahoe basins for assessment of climate change impacts on water resources. Nevada Water Resources Association annual meeting, oral presentation at Nevada Water Resources Annual Meeting, Reno, NV, January 30, 2013.
- 26. \*Gardner, M., **Huntington**, J.L., Niswonger, R., Reeves, M., and G., Pohll. (2013). Hydrogeologic Framework Development for Integrated Hydrologic Modeling of Mountain Block Alluvial Systems in Lake Tahoe & Martis Valley, Nevada & California. Nevada Water Resources Association Annual Conference, January 28-31, Reno, NV.
- 25. \*Liebert, R., **Huntington**, J.L., Paudel, K., Acharya, K., and R., Jasoni. (2013). Remote Sensing of Reduced Evapotranspiration from Tamarisk Defoliation Along the Lower Virgin and Muddy Rivers. Nevada Water Resources Association Annual Conference, January 28-31, Reno, NV. 1st Place Student Poster.
- 24. **Huntington**, J.L., Rajagopal, S., Allen, R., Mihevc, T., Schumer, R., Caldwell, T., and H., deBruin. (2012). Energy Balance Comparison and Closure at a Moist Desert Playa: The Importance of Ground Heat Storage and Flux Estimation. American Geophysical Union 2012 Fall Conference, San Francisco, CA.
- 23. \*Gardner, M., **Huntington**, J.L., Niswonger, R., Reeves, M., and G., Pohll. (2012). Hydrogeologic Framework Development for Integrated Hydrologic Modeling of

- Mountain Block Alluvial Systems in Lake Tahoe and Martis Valley, Nevada and California. American Geophysical Union 2012 Fall Conference, San Francisco, CA.
- 22. Tansey, M., Flores-Lopez, F., Young, C., and J.L., **Huntington**. (2012). Assessment of Climate Change Impacts on Agricultural Water Demands and Crop Yields in California's Central Valley. American Geophysical Union 2012 Fall Conference, San Francisco, CA.
- 21. **Huntington**, J.L., and R. Niswonger. (2012). Role of Surface and Groundwater Interactions on Projected Baseflows in the Tahoe Region: An Integrated Modeling Approach. Tahoe Science Conference, Sierra Nevada College, May 22-24.
- 20. **Huntington**, J.L., B. Lyles, G. McCurdy, T. Mihevc, \*\*A.J. Wolff, A. Sullivan, and R. Allen. (2012). Development of the Nevada Integrated Climate & Evapotranspiration Network "NICE Net". Nevada Water Resources Association Annual Conference, March 5-8, Las Vegas, NV.
- 19. \*Gilbertson, L., **Huntington**, J.L., Morton, C., and G. Pohll. (2012). Estimating Agricultural Water Use from Remote Sensing in Amargosa Valley: Will Solar Power Use More? Nevada Water Resources Association Annual Conference, March 5-8, Las Vegas, NV. Student Poster Presentation. **1**st **Place Student Poster**.
- 18. \*McEvoy D., **Huntington**, J.L., and L.M. Edwards (2012). Utility of precipitation indices as indicators of drought in Nevada and Eastern California. Nevada Water Resources Association Annual Conference, March 5-8, Las Vegas, NV. Student Poster Presentation. **2<sup>nd</sup> Place Student Poster.**
- 17. Allen, R.G., **Huntington**, J.L., Irmak, A., deBruin, H., and J. Kjaersgaard. (2012). Conditioning of NLDAS, NARR and arid weather station data for estimating evapotranspiration under well-watered conditions. American Geophysical Union, Chapman Conference on Remote Sensing of the Terrestrial Water Cycle, Kona, HI, February 19-22,
- 16. \*Gilbertson, L., Pohll, G., **Huntington**, J.L., and S., Silliman. (2012). An Intercomparison of Evapotranspiration Estimation Methods for the Godomey Well Field in Benin, West Africa. Chapman Conference on Remote Sensing of the Terrestrial Water Cycle, Kona, HI, February 19-22.
- 15. \*Gilbertson, L., Pohll, G., **Huntington**, J.L., and S. Silliman. (2011). Using Vegetation Indicies from MODIS to Estimate Evapotranspiration for the Godomey Well Field in Benin. American Geophysical Union 2011 Fall Conference, San Francisco, CA.
- 14. \*Beamer, J.P., \*Morton, C., **Huntington**, J.L., and G., Pohll. (2011). Annual Evapotranspiration estimation using Landsat and Flux tower data. Nevada Water Resources Association 2011 Annual Conference, Nevada Water Resources Association. Reno, NV. 1st Place Student Poser.
- 13. Sullivan, A., \*Gilbertson, L., \*Morton, C., and J.L., **Huntington**. (2011). Quantifying Agricultural Consumptive Use Using Remote Sensing to Support Water Rights Changes in the Walker River Basin. Nevada Water Resources Association 2011 Annual Conference, Nevada Water Resources Association. Reno, NV.
- 12. \*Comartin, L., Reeves, D.M., Pohll, G., and J.L., \***Huntington**. (2010). A basin-scale model of Pahrump Valley, Nevada for water resources management. National Ground Water Association Summit, Denver, CO, April 11-15.
- 11. \*Huntington, J.L., \*Morton, C., \*Beamer, J., Minor, T., Allen, R., Sullivan, A., Pohll, G., Lyles, B., and J., Thomas. (2010). Western Nevada Water Resources Evaluation Program. The USBR Alliance University Applied Remote Sensing of Evapotranspiration

- Conference, The USBR-Alliance University, Las Vegas, NV.
- 10. \*Huntington, J.L., and R.G., Niswonger. (2010). Potential Water Resource Impacts from a Changing Climate in Sierra Nevada Watersheds Using and Integrated Model, GSFLOW. Nevada Water Resources Association 2010 Annual Conference, Las Vegas, NV.
- 9. \*Huntington, J.L., Niswonger, R.G., Markstrom, S., Regan, R., and G. Pohll (2009). Using GSFLOW and Hydrologic Tracers to Assess Surface and Groundwater Interactions, Residence Times, and Flowpaths in Two Lake Tahoe Watersheds. American Geophysical Union Fall Conference, American Geophysical Union. San Francisco, CA.
- 8. \*Humphrey, S., Reeves, D., Pohll, G., Oppliger, G., and J.L., \***Huntington**. (2008). A stochastic approach to a groundwater flow model for the southern Honey Lake Valley in Lassen County, California and Washoe County, Nevada. Nevada Water Resource Association Annual Conference. Mesquite, Nevada.
- 7. \*Huntington, J.L., \*Caldwell, T., \*Naranjo, R., \*Burak, S., and S., Tyler. (2007). Trends in Pan Evaporation and Application of the Complimentary Relationship of Evaporation in the Great Basin, USA. American Geophysical Union Fall Conference, San Francisco.
- 6. \*Huntington, J.L., \*Burak, S., \*Caldwell, T., \*Naranjo, R., and S., Tyler. (2007). Testing Bouchet's Hypothesis for Estimating Actual Evapotranspiration for Selected Sites in Nevada. Nevada Water Resource Association Annual Conference, Reno, NV. 1st Place Student Poster.
- 5. \*Huntington, J.L., Boyle, D.P., Lamorey, G.W., and S.D., Bassett. (2006). Improving US Bureau of Reclamation water supply, demand monitoring and forecasting using NASA Earth Science Data. Joint 8th Federal Interagency Sedimentation and 3rd Hydrologic Modeling Conference, Reno, NV.
- 4. \*Procsal, M., \*Huntington, J.L., McNamara, J., and C., Luce. (2005). Modeled Snow Water Equivalent and Remotely Sensed Snow Covered Area to Develop A Dimensionless Depletion Curve in The Dry Creek Experimental Watershed, Boise, Idaho. Western Snow Conference, April 11 14, Great Falls, Montana.
- 3. \*Huntington, J.L., Boyle, D., Lamorey, G., and D., Toll. (2005). Evaluation of a Hydrologic Model Applied to the Walker River Basin, Nevada, Using a Long Term Gridded Evapotranspiration Dataset. Bureau of Reclamation ET Workshop: State-of-the-Art Review of Evapotranspiration (ET) Remote Sensing Science and Technology, February 8 10, Fort Collins, Colorado.
- 2. \*Huntington, J.L., \*Shivakumar, P., and D., Boyle. (2004). Estimation of Fractional Snow Cover Using Landsat MODIS Normalized Snow Index Regression Equations for Improved Streamflow Forecasting: An Example from Del Norte, Colorado. Science & Technology Center for Sustainability of Semi-Arid Hydrology and Riparian Areas (SAHRA) Annual Meeting, Albuquerque, NM, October 13th 15th.
- 1. \*Morse, B.S., Pohll, G.M., and J.L., \*Huntington. (2001). Understanding the uncertainties of capture zone analysis: A Bayesian approach. American Geophysical Union 2001 Fall Conference, San Francisco, CA.

# STUDENT ADVISMENT (committee chair, member, supervisor, or mentor)

		, , , , , ,
•	Jennifer Johnson	Ph.D., Water Resources, U of Idaho, 2014-2017 (member)
•	John Volk	Ph.D., Hydrology, UNR GEOL, 2014-2018 (member)
•	Dan McEvoy	Ph.D., Atmospheric Science, UNR ATMS, 2009-2015 (member)
•	Thomas Ott	M.S. Hydrogeology, UNR NRES, 2018-2020 (chair)
•	Blake Minor	M.S. Hydrology, UNR NRES, 2016-2019 (chair)
•	Matt Bromley	M.S., Geography, UNR GEOG, 2013-2017 (member/supervisor)
•	Ryan Liebert	M.S., Hydrogeology, UNR NRES, 2012-2015 (chair)
•	Sue Burak	M.S., Hydrology, UNR NRES, 2013-2015 (chair)
•	Karly Wagner	M.S., Hydrology, UNR NRES, 2013-2015 (member)
•	Lydia Peri	M.S., Hydrology, UNR GEOL, 2013-2015 (member)
•	Dan Sauceda	M.S., Atmospheric Science, UNR ATMS, 2012-2015 (member)
•	John Volk,	M.S., Hydrology, UNR GEOL, 2012-2014 (member)
•	Murphy Gardner	M.S., Hydrogeology, UNR GEOL, 2011-2014 (member)
•	Riley James	B.S., Physics, Occidental College, 2015-2016 (supervisor)
•	Christian Dunkerly	B.S., Biology, UNR BIOL, 2009-2015 (supervisor/thesis advisor)
•	Jeff Brito	A.S., Western Nevada College, 2015-pres (supervisor)
•	Lucas Wright	Carson High School, 2015-2016 (supervisor)
•	Zachary Mahannah	Reno High School, 2015-2015 (supervisor)
•	Austin Chapman	Las Vegas Academy, 2014-2015 (supervisor)

## TEACHING EXPERIENCE

- o Instructor University of Nevada, Reno
  - ATMS 792 Special Problems Evapotranspiration and Evaporative Demand (Fall 2012)
  - BIOL 298 Independent Study Remote Sensing of Evapotranspiration (Spring 2013)
- Instructor -Workshops
  - Western States Evapotranspiration Workshop Desert Research Institute, September 12-15, 2017
  - U.S. Bureau of Reclamation, Agricultural Water Demands Workshop, Boulder Colorado, May 15-19, 2011
- o Guest Instructor University of Nevada, Reno
  - o NRES 295 Ecohydrology (Fall 2015)
  - o GEOL 781 Advanced Surface Water Hydrology (Spring 2012)
  - o GEOG 621 Climatology (Spring 2012)
  - o GEOL 785 Introduction to Groundwater Modeling (Fall 2004)
- o Guest Instructor other
  - University of Colorado, Boulder, ATOC 4550/5550 Mountain Meteorology (Fall 2015)
  - Mapping Evapotranspiration at High Resolution with Internalized Calibration (METRIC) Workshop, March 19-23, 2012

#### RECOGNITION AND PRESS

- o OpenET: A Satellite-Based Water Data Resource (2021) <a href="https://www.nasa.gov/image-feature/openet-a-satellite-based-water-data-resource">https://www.nasa.gov/image-feature/openet-a-satellite-based-water-data-resource</a>
- OpenET a bold initiative to fill water management data gap in Western U.S., U.S. Geological Survey (2020) https://on.doi.gov/3cxiRNY
- Climate Engine maps and time series help scientists and managers see and study earth observation data – Invited contribution to Google Earth Medium blog (2019) https://bit.ly/31QbefY
- o Climate Engine project featured on the cover of the November 2017 issue of the Bulletin of the American Meteorological Society (impact factor of 7.9) https://bit.ly/2SsjVKC
- White House Water Summit recognition for the Climate Engine web application (2016) https://goo.gl/4dF1Cv
- Nevada Governor's Drought Forum, need for better water use and weather data across the state (2015) - <a href="https://bit.ly/33Vw3bw">https://bit.ly/33Vw3bw</a>
- Using satellite imaging to manage water: An unbiased, impartial arbitrator, News 4 Nevada & Inside Northern Nevada (2014) - <a href="http://goo.gl/Ug7quL">http://goo.gl/Ug7quL</a>
- Google remote sensing and drought project mentioned in the White House Climate Data Initiative (2016) - https://goo.gl/5zDxHJ
- NPR radio interview for measuring evaporation from Folsom Reservoir, CA (2016) https://bit.ly/2EwpOCj
- o Featured in Northern Nevada Business Weekly and Nevada Appeal articles on improved data helping farmers manage irrigation needs (2014) <a href="https://bit.ly/32Y0Bda">https://bit.ly/32Y0Bda</a>

# PROFESSIONAL SERVICE

- o Reviewer for Science
- o Reviewer for Nature Climate Change
- o Reviewer for Geophysical Research Letters
- o Reviewer for Water Resources Research
- o Reviewer for Remote Sensing of Environment
- o Reviewer for Journal of Hydrometeorology
- Reviewer for PLOS ONE
- o Reviewer for Remote Sensing
- o Reviewer for Hydrological Processes
- o Reviewer for Advances in Water Resources
- o Reviewer for Agricultural Water Management
- o Reviewer for Hydrologic Earth System Science
- o Reviewer for Journal of the American Water Resources Association
- o Panelist for National Science Foundation, Division of Earth Sciences
- o Panelist for NASA ROSES Applied Sciences Program Water Resources
- o Member of the American Geophysical Union
- o Member of the American Meteorological Society
- o Member of the American Water Resources Association
- o Member of the Nevada Water Resources Association
- Member of America View A Nationwide Consortium for Remote Sensing Education, Research, and Geospatial Applications

- o Member of the American Society of Civil Engineers (ASCE), Evapotranspiration Task Committee
- o Planning Committee Member for the Nevada Water Resources Association
- o Annual guest instructor for "snow field day" for Galena High School AP Environmental Science class
- o Mentor for Boys and Girls Club, Big Brother program