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FORMAL EDUCATION:

University of Idaho	Agricultural Engineering	BS, 1978
University of Idaho	Agricultural Engineering	MS, 1984

EMPLOYMENT HISTORY:

1980 to Present: Research Associate -- Research Support Scientist – Research Scholar in Water Resources, Kimberly Research and Extension Center, University of Idaho, 3793 N 3600 E Kimberly, Idaho 83341, 208-423-4691 (208-423-6610).

1979 to 1980: Agricultural Engineering Graduate Assistant, Kimberly Research and Extension Center, University of Idaho, 3793 N 3600 E Kimberly, Idaho 83341, 208-423-4691.

PROFESSIONAL LICENSES:

Agricultural Engineer, State of Idaho, #4932.

INTERESTS AND DUTIES:

Current research topics include surface water quality, water use by crops and other vegetation, instrumentation of non-agricultural areas collecting meteorological data. Development of operational scripts to process data (land surface and satellite based data) and develop water consumption via evapotranspiration for various land cover conditions. Duties include field collection of data, laboratory analysis, data analysis, data management, supervision of field and laboratory technicians, maintenance of electronic databases, geospatial analyses with GIS systems, and other research duties as assigned.

Additional duties not directly related to water resources included maintenance of the local computer systems, file server, print servers, web server and network equipment at the Research and Extension Center.

COMMUNITY SERVICE:

Boy Scout Troop 42 Committee/Chair
Retired volunteer Rock Creek Rural Fire Department and QRU
Past Community Zoning Board Member.
Mid-Snake Watershed Advisory Group and Technical Advisory Committee.

PUBLICATIONS (Articles, Papers, and Technical Reports):

Robison, C.W., Trezza, R., Allen, R.G., Urie, B., and Stewart, J., 2018. Report on the Production of Near-Real-Time Evapotranspiration Maps and Final Evapotranspiration Maps

- using the METRICtm Model for the Eastern Snake Plain Region, Idaho for April-October 2017. Technical report to Idaho Department of Water Resources, Boise, Idaho, submitted September 2018.
- Trezza. R., **Robison, C.W.**, Kelly, C., and Allen, R. G., 2017, Report on the Production of Provisional Near-Real-Time and Final Evapotranspiration Maps using the METRICtm Model for the Eastern Snake Plain Region, Idaho April-October 2016 – Final Processing. University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Kilic, A, Allen, R. G., Trezza, R., Ratcliffe, I., Kamble, B., **Robison, C.**, and Ozturk, D., 2016, Sensitivity of evapotranspiration retrievals from the METRIC processing algorithm to improved radiometric resolution of Landsat 8 thermal data and to calibration bias in Landsat 7 and 8 surface temperature. Remote Sensing of Environment, Volume 185.
- Hendrickx, J. Allen, R., Brower, A., Hong, S., Ogden, F., Trezza, R., Nawa, P., **Robison, C.**, Toll, D. and Wilson, J. 2016. Benchmarking Optical/Thermal Satellite Imagery for Estimation of Evapotranspiration and Soil Moisture in Decision Support Tools. Journal of the American Water Resources Association (JAWRA 52(1): 89-119.)
- Trezza. R., Allen, R. G., **Robison, C.W.** and Zhao, W., 2016, Report on the use of VIIRS data to produce Evapotranspiration Maps using the METRICtm Model for the Eastern Snake Plain Region, Idaho 2013. University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Kelly, C., Trezza. R., Allen, R. G., and **Robison, C.W.**, 2016, Report on the Production of Evapotranspiration Maps from Landsat Images for the Eastern Snake Plain Region, Paths 39 and 40, Idaho for Year 2013 using the METRICtm Model, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Dhungel, R., Allen, R. G., Trezza, R. and **Robison, C. W.**, 2016, Evapotranspiration between satellite overpasses: methodology and case study in agricultural dominant semi-arid areas. Met. Apps, 23: 714–730.
- Trezza. R., Greth, J., Allen, R. G., and **Robison, C.W.**, 2016, Report on the Production of Evapotranspiration Maps from Landsat Images for the Eastern Snake Plain Region, Paths 39 and 40, Idaho for Year 1986 using the METRICtm Model, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Kelly, C., Greth, J., Trezza. R., Allen, R. G., and **Robison, C.W.**, 2015, Report on the Production of Evapotranspiration Maps from Landsat Images for the Eastern Snake Plain Region, Paths 39 and 40, Idaho for Year 2011 using the METRICtm Model, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Trezza. R., Greth, Allen, R. G., and **Robison, C.W.**, 2015, Report on the Production of Evapotranspiration Maps from Landsat Images for the Eastern Snake Plain Region, Paths 39 and 40, Idaho for Year 1992 using the METRICtm Model, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Dhungel, Ramesh, Richard G. Allen, Ricardo Trezza, and **Clarence W. Robison.** 2014.

Comparison of Latent Heat Flux Using Aerodynamic Methods and Using the Penman–Monteith Method with Satellite-Based Surface Energy Balance. *Remote Sensing* 09/2014; 6:8844-8877.

- The EEFlux Development Team: R. Allen, B. Kamble, C. Morton, A. Kilic, J. Huntington, **C. Robison**, I. Ratcliffe, R. Trezza, D. Thau, T. Erickson, N. Gorelic, 2014, An Evapotranspiration Mapping Tool at Landsat Resolution on the Google Earth Engine: EEFlux. 2014 Pecora 19 Remote Sensing Conference, Denver, CO, Nov. 2014.
- Kelly, C., Greth, J., Trezza, R., Allen, R. G., and **Robison, C.W.**, 2014, Report on the Production of Evapotranspiration Maps from Landsat Images for the Eastern Snake Plain Region, Paths 39 and 40, Idaho for Year 2010 using the METRIC™ Model, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Allen, R. G., Kjaersgaard, J., Trezza, R., Oliveira, A., **Robison, C.**, and Lorite-Torres, I., 2012, Refining components of a satellite based surface energy balance model to complex-land use systems. *Proceedings of the Remote Sensing and Hydrology Symposium, Jackson Hole, Wyo, IAHS. Oct. 2010. [IAHS Publ. 352, 2012]*
- Kjaersgaard, J., Allen, R. G., **Robison, C.**, Irmak, A., Ratcliffe, I., Ranade, P., Trezza, R., Dhungel, R., and Kra, E., 2012, Adjusting for background soil evaporation when interpolating evapotranspiration between satellite overpass dates. *Proceedings of the Remote Sensing and Hydrology Symposium, Jackson Hole, Wyo, IAHS. Oct. 2010. [IAHS Publ. 352, 2012]*
- Kjaersgaard, J., Allen, R. G., Trezza, R., **Robison, C.**, Oliveira, A., Dhungel, R., and Kra, E., 2012, Filling satellite image cloud gaps to create complete images of evapotranspiration. *Proceedings of the Remote Sensing and Hydrology Symposium, Jackson Hole, Wyo, IAHS. Oct. 2010. [IAHS Publ. 352, 2012]*
- Allen, R.G. and **C.W. Robison**. 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho (Updated). University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Trezza, R., Allen, R. G., **Robison, C. W.**, and Kjaersgaard, J., 2011, Completion Report on the Production of Satellite-based Maps of Evapotranspiration using the METRIC™ Model for Year 2010 for Landsat Path/Row 45/30 in Oregon. University of Idaho Research and Extension Center Report submitted to the United States Forest Service.
- Trezza, R., Allen, R. G., **Robison, C. W.**, and Kjaersgaard, J., 2011, Completion Report on the Production of Evapotranspiration Maps for Year 2007 for the Smith River, Helena, Bozeman and Dillon areas of Montana using Landsat Images and the METRIC™ Model. University of Idaho Research and Extension Center Report submitted to the United States Geological Survey, and the Montana Bureau of Mines and Geology.
- Allen, R.G. and **Robison, C. W.**, 2009, Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho (Updated), University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Garcia, M., Allen, R. G., and **Robison, C.W.**, 2009, Application of METRIC™ to Determine

- Evapotranspiration for Southeastern and Southcentral Portions of Idaho Including The Eastern Snake River Plain For 2006, University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Kjaersgaard, J. H., Allen, R. G., **Robison, C.**, Aggett, G. R., Schneider, C. A., Hattendorf, M. J., Irmak, A., and Hergert, G. W., 2008, Computation of Landsat Based Evapotranspiration Maps along the South Platte and North Platte Rivers. The 17th William T. Pecora Memorial Remote Sensing Symposium, Denver Colorado.
- Allen, R. G., **Robison, C. W.**, Garcia, M., Kjaersgaard, J. H., and Kramber, W. J., 2008, Enhanced Resolution of Evapotranspiration by Sharpening the Landsat Thermal Band. The 17th William T. Pecora Memorial Remote Sensing Symposium, Denver Colorado.
- Burnett, B., Allen, R. G., **Robison, C. W.**, Tasumi, M., and Lorite, I., 2008, Estimating the Soil Surface Evaporation and Transpiration Components from Satellite Images in the Absence of a Thermal Band. ASCE World Environmental and Water Resources Congress 2008: Ahupua'A . 2008
- Trezza, R., Allen, R. G., **C. W. Robison**, W. J. Kramber, M. Tasumi, and M. Garcia, 2008, Enhanced Resolution of Evapotranspiration from Riparian Systems and Field Edges by Sharpening the Landsat Thermal Band. ASCE World Environmental and Water Resources Congress 2008: Ahupua'A . 2008
- Allen, R. G., M. Tasumi, R. Trezza, **C. W. Robison**, M. Garcia, D. Toll, K. Arsenault, J. M. H. Hendrickx, and J. Kjaersgaard, 2008, Comparison of Evapotranspiration Images Derived from MODIS and Landsat along the Middle Rio Grande. ASCE World Environmental and Water Resources Congress 2008: Ahupua'A . 2008
- Allen, R. G., M. Tasumi, A. Morse, R. Trezza, J. Wright, W. Bastiaanssen, W. Kramber, I. Lorite and **C. Robison**. 2007. Satellite-Based Energy Balance for Mapping Evapotranspiration with Internalized Calibration (METRIC)--Applications. Journal of Irrigation and Drainage Engineering, Aug 2007, Vol.133(4), pp.395-406
- Allen, R.G. and **C.W. Robison**. 2007. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho (Revised). University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources.
- Allen, R.G., M. Tasumi, A.T. Morse, R. Trezza, W. Kramber, I. Lorite and **C.W. Robison**. 2006. Water management applications using evapotranspiration maps from satellite-based energy balance. International Symposium on Water and Land Management for Sustainable Irrigated Agriculture, Adana, Turkey, 4-8 April. 2006. Proc. p. 64-78.
- Allen, R.G., M. Tasumi, **C.W. Robison** and R. Trezza. 2006. Summary of the METRIC-MODIS Application for the Middle Rio Grande Valley of New Mexico for Year 2002. University of Idaho Research and Extension Center Report submitted to the US. Bureau of Reclamation and NASA. 27 p.
- Allen, R.G. and **C.W. Robison**. 2006. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho. University of Idaho Research and Extension Center Report submitted to the Idaho Department of Water Resources. 179 p.
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- Robison, C.W.**, Allen, R.G., and Merkle, R., 2002, "Water quality of surface irrigation returns in southern Idaho", IN: Proceedings of the USCID/EWRI Conference on Energy, Climate, Environment and Water - Issues & opportunities for Irrigation and Drainage, San Luis Obispo, California, USA, July 2002, pp 243-252.
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- Robison, C.W.** and Brockway, C.E. 1999. Southeast Boise aquifer simulation and aquifer recharge and recovery evaluation. Technical Completion Report. Micron Technology, Inc., Boise, Idaho.
- Cosgrove, D.M., G.S. Johnson, C.E. Brockway, and **C.W. Robison**, 1998, Development of a transient ground water model for the Twin Falls area, Idaho: Idaho Water Resources Research Institute and University of Idaho, Moscow ID
- Cosgrove, D.M., G.S. Johnson, C.E. Brockway, and **C.W. Robison**, 1997, Geohydrology and development of a steady state groundwater model for the Twin Falls Idaho area; Idaho Water Resources Research Institute, University of Idaho, Moscow, ID.
- Robison, C.W.** and Brockway, C.E. 1994, Water quality monitoring study and ammonia toxicity evaluation - Auger Falls Hydroelectric Project. Completion Report, Brockway Engineering, Twin Falls Idaho.
- Robison, Clarence W.** and Charles E. Brockway, 1992, "Thinking About Post-Project Evaluation -- START NOW!", IN: Proceedings of the National RCWP Symposium - 10 Years of Controlling Agricultural Nonpoint Source Pollution: The RCWP Experience. Orlando, Florida, September 13-17, 1992.
- Brockway, C.E., **C.W. Robison** and G.S. Johnson, 1992, "Evaluation of Water Quality in Shallow Ground-Water Systems". Research Technical Completion Report, Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho.
- Robison, Clarence W.** and C. E. Brockway, 1991, "Water Quality of the Middle Snake River", American Society of Agricultural Engineers Pacific Northwest Annual Meeting, Sun Valley, Idaho, October 1991
- Brockway, C.E. and **C.W. Robison**, 1991, "Middle Snake River Water Quality Survey -- Final Report". Research Technical Completion Report, Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho.
- Brockway, C.E., **C.W. Robison** and S. Kolar, 1990. "Final Report - Municipal Pump Monitor

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- Brockway, C.E., **C.W. Robison** and D. Abraham, 1989, "Operation Manuals for Electronic Pump and Open Channel Diversion Monitors". Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho
- Hill, Robert W., Charles E. Brockway, Robert D. Burman, L. Niel Allen and **Clarence W. Robison**, 1989, "Duty of Water Under the Bear River Compact: Field Verification of Empirical Methods for Estimating DEPLETION", Final Report, Research Report 125, Utah Agricultural Experiment Station, Utah State University, Logan, Utah.
- Brockway, C.E. and **C.W. Robison**, 1988, "Water Resources Data and Management Model for Beaver Creek, Camas Creek and Mud Lake Area of Eastern Idaho", Research Technical Completion Report, Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho
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- Brockway, C.E. and **Clarence Robison**, 1987, "Evaluation of Closed-Conduit Measuring Devices for Irrigation Diversions". Research Technical Completion Report, Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho
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- Brockway, C.E., C.W. Robbins, **C.W. Robison** and G.S. Johnson, 1984, "Evaluation of Irrigation Management Procedures for Geothermal Effluent". Completion Report, Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho
- Brockway, C.E., F.J. Watts, **C.W. Robison**, R.P. Sterling and V.L. Watkins, 1983, "Development of a Sediment Generation and Routing Model for Irrigation Return Flow". Completion Report, Idaho Water and Energy Resources Research Institute, University of Idaho, Moscow, Idaho.
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Brockway, C.E., D.L. Carter and **C.W. Robison**, 1981, "LQ Drain -- Irrigation Return Flow Study -- Final Report". University of Idaho Department of Agricultural Engineering and USDA Science and Education Administration, Kimberly, Idaho.

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