# Department of Agricultural and Resource Economics University of Connecticut

#### **EDUCATION:**

Ph.D. Agricultural & Applied Economics, University of Wisconsin, Madison Wisconsin, 1990 B.A. (Zoology) University of Maine, Orono Maine, 1983

### **EMPLOYMENT HISTORY:**

Department Head and Professor, Department of Agricultural and Resource Economics, University of Connecticut, August 2019 – current.

Director, Zwick Center for Food and Resource Policy, University of Connecticut, Aug. 2019 - current. Professor Emeritus, University of Nevada, Reno, August 2019 to current

Professor, Department of Economics, University of Nevada, Reno, 2014 - 2019.

Visiting Scholar/Advisor, Environment and Climate Change Canada, Ottawa, Canada, 2014-15

Associate Professor, Department of Economics, University of Nevada, Reno, 2011-14

Associate Professor, Department of Resource Economics, University of Nevada, 2002-11

Visiting Associate Professor, Nicholas School of the Environment, Duke University, Durham, North Carolina, 1998-99

Associate Professor, Department of Agricultural Economics and Business, University of Guelph, Guelph, Ontario, Canada, 1998-02

Assistant Professor, Department of Agricultural Economics and Business, University of Guelph, Guelph, Ontario, Canada, 1992-98

Post-Doctoral Research Associate, Department of Applied and Agricultural Economics, University of Wisconsin, Madison and CATIE, Turrialba, Costa Rica, 1990-91

Graduate Research Assistant, Department of Applied and Agricultural Economics, University of Wisconsin, Madison, 1986-1990.

Programmer and Data Analyst, University of Wisconsin Agricultural Economics and University Extension Community Economic Development Program, Madison, WI. 1984-85.

Technician/Analyst, Fisheries Management Division, Wisconsin Department of Natural Resources, Madison, WI. 1983-84

### PROFESSIONAL AWARDS AND HONORS:

LEAD21 – Leadership training to develop leaders for Land Grant Institutions and their strategic partners for the 21<sup>st</sup> Century, Class 19, 2022-23.

Dean's Research Professor, College of Business, University of Nevada, Reno. 2014-17.

Editor's Choice Award for the article "A Systems Approach for Restoring Degraded Rangelands" *Applied Ecology* 50(3): 730-739. 2013.

Seven MS thesis & PhD national dissertation awards won by students supervised.

Best Journal Article, Honourable Mention – "Wilderness Canoeing in Ontario: Using Cumulative Results to Update Dichotomous Choice Contingent Valuation Offer Amounts," *Canadian Journal of Agricultural Economics*, 45(1997): 1-16. 1998.

Outstanding Dissertation Award, American Agricultural Economics Association. "Agriculture and Wildlife: From Principal-Agent Theory to a Wisconsin Economic Policy." 1991.

Outstanding Dissertation Award, Department of Agricultural and Applied Economics, University of Wisconsin, Madison. 1991

**CITIZENSHIP:** US and Canada

## **RECENT PROFESSIONAL ACTIVITIES HIGHLIGHTS (last 5 years):**

#### TEACHING:

• Facilitated the redesign undergraduate majors to align with career tracks, and to develop a fast-track to 5<sup>th</sup> year MS degree. Numbers of applicants to the department undergraduate program increased by 5-fold. AY 21-22.

- Facilitated year-long department Assessment Planning process during AY 22-23.
- Established procedures for training, assessing, and supporting Department graduate students to become lecturers.

#### RESEARCH:

- Developed partnership role for the Department with the University of Connecticut's Eversource Energy Center, starting with the 2023 5-year plan.
- Reorganized the Zwick Center for Food and Resource Policy to broaden scope and relevance, to partner with Extension and with the Connecticut Center for Economic Analysis in the School of Business.
- Lead multimillion-dollar extramural grant-funded research program in Environmental, Natural Resource and Agricultural and Economics at UNR.

#### **ENGAGEMENT:**

- Keynote participant for Economics and Social Science component in "Futuring for the Next Twenty Years of Forest and Rangelands Management," USDA Forest Service. Salt Lake City, Utah, Sept 27-29, 2022 Washington D.C. Office, Forest and Rangelands Management Program.
- Aided Development of online survey-based Needs Assessment methodology for the Nevada Association of Conservation Districts and Clark County Cooperative Extension
- Lead assessment of costs of water rights conflict for the Nevada Division of Water Resources
- Lead Southern Nevada Water Authority through process to measure elasticities of water demand by use and industry in preparation for PUC requests.
- Evaluated costs of energy generation impacts to Saugeen Ojibway Nation Fishery
- Collaborated with Regional Water Authorities and University of Nevada Cooperative Extension to estimate and publish elasticities of demand for water.

#### LEADERSHIP AND SERVICE:

### National and Regional Boards and Committees:

- Grants Review Panel member for NASA, 2020.
- Topic Leader, Resource and Environmental Policy Analysis, for professional presentations at the American Agricultural Economics Association Annual Meetings, 2019 and 2020.
- Topic Leader, Resource and Environmental Policy Analysis, for professional presentations at the American Agricultural Economics Association Annual Meetings, 2019 and 2020.
- Grants Review Panel member for USDA/NIFA, 2018.

### University of Connecticut, University Service (2019 - present):

- Member, Carbon Neutral Task Force, 2023 to current
- Member, Office of Sustainability Environmental Leadership Awards Committee, 2023 to present
- Member, Solve Climate by 2030, 2020 to current
- Member, Advisory Group, TEALE University Lecture Series 2020-21

University of Connecticut, College Service (2019 - present):

- Member, Steering Committee, CAHNR Strategic Visioning Committee 2019-2020.
- College Leadership Council

University of Nevada, Reno University Service:

- Member, Faculty Senate Research and Grants Committee, 2015-18
- Member, University Dismissals Appeals Committee, 2015 18
- Chair, Graduate Program Subcommittee, Faculty Senate Research and Grants Committee, 2016-18
- Member, Department Personnel Committee (Promotion, Tenure and Review), 2018-21
- Chair, Faculty Search Committee, 2017-18

## **PUBLICATIONS**

#### **Peer-Reviewed Articles**

- Glover, C.J., A. McDonnell, K.S. Rollins, S.R. Hiibel, P.K. Cornejo. 2023. Assessing the Environmental Impact of Resource Recovery from Dairy Manure. *Journal of Environmental Management*, Volume 330, 15 March 2023. https://doi.org/10.1016/j.jenvman.2022.117150.
- Taylor, M.H., J. Kingsley, K. Rollins, and A. Bowman. 2021. The Economic Cost of Unanticipated Water Supply Reductions for Agricultural Producers in the Humboldt River Region. *Journal of the Nevada Water Resources Association*, Winter 2021, p. 5-41. DOI: 10.22542/jnwra/2021/1/1.
- Brent, D.A., C.G. Lott, M. H. Taylor, K. Rollins, J. Cook and S. Stoddard. 2020. What causes heterogeneous responses to social comparison messages for water conservation? *Environmental and Resource Economics* 77(3): 503-537.
- Lee, Gi-Eu, K. Rollins, and L. Singletary. 2020. An Empirical Analysis of the Influence of Permitted Place of Use Transfers on the Performance of Prior Appropriations Water Rights. *Land Economics* 96(3): 384-398.
- Zhong, Hua, Michael H. Taylor, Dale T. Manning, Kimberly Rollins, and Christopher Goemans. 2019. Who pays for water scarcity? Evaluating the welfare implications of water infrastructure investments for cities. *Annals of Regional Science* 63:559-600.
- Sisante, Angelo, M., Michael H. Taylor, and Kimberly Rollins. 2019. "Understanding Homeowners' Decisions to Mitigate Wildfire Risk and Create Defensible Space: Evidence from Nevada." *International Journal of Wildland Fire* 28(11): 901-911.
- Taylor, M.H., L. Christman and K. Rollins. 2019. Choosing the Right Policy to Promote Defensible Space in the Wildland-Urban Interface: Evidence from Homeowners in Nevada. *Land Economics* 95(4):531–556.
- Bowman, A., C. Lott, C. Meenan, K. Rollins S. Stoddard and L. Singletary. 2018. Elasticity of Price Demand for Water for Residential and Commercial Sectors in Nevada. University of Nevada Cooperative Extension Special Publication SP-18-05.
- Taylor, M.H., K. Rollins and C. Lott. 2018. Exploring the Behavioral and Welfare Implications of Social-Comparison Messages in Residential Water and Electricity. *Economic Letters* 168: 65-69.
- Epanchin-Niell, R., Rollins, K. S., Taylor, M. H. 2016. The Sage Grouse Listing Decision: How Changing Expectations Could Affect Private Conservation. *Resources*, 192(May 23, 2016):16-17. http://www.rff.org/files/document/file/RFF-Resources-192\_SageGrouseListingDecision.pdf

Christman, L., and K. Rollins. 2015. The Expected Value of Wildfire-potential Information: A Location-Allocation Problem for Fire Suppression Resources. *International Journal of Wildland Fire*. 24(7) 974-982

- Taylor, M.H., A. J. Sanchez-Meador, Y. Kim, K. Rollins and H. Will. 2015. The Economics of Ecological Restoration and Hazardous Fuel Reduction Treatments in the Ponderosa Pine Forest Ecosystem. *Forest Science*. Volume 61, Number 6, 20 December 2015, pp. 988-1008(21)
- Evans, M.D.R. and K. Rollins. 2015. The social psychology of outdoor recreation lifestyles: dimensions, determinants and implications. *Environmental Economics*, 6 (2): 123-136.
- Kobayashi, M., K. Rollins, and M.H. Taylor. 2014. Optimal Livestock Management on Sagebrush Rangeland with Ecological Thresholds, Wildfire, and Invasive Plants. *Land Econ* 90 (4): 623-648.
- McIver, J., Brunson, M., Bunting, S., Chambers, J., Doescher, P., Grace, J., Hulet, A., Johnson, D., Knick, S., Miller, R., Pellant, M., Pierson, F., Pyke, D., Rau, B., Rollins, K., Roundy, B., Schupp, E., Tausch, R., Williams. 2014. "A Synopsis of Short-Term Response to Alternative Restoration Treatments in Sagebrush-Steppe: The SageSTEP Project," *J. Rangeland Ecol. & Management* 67(5):584-598.
- Weltz, M.A., K. Spaeth, M. Taylor, K. Rollins, F. Pierson, L. Jolley, M. Nearing, and S.K. Nouwakpo. 2014. Cheatgrass Invasion and Woody Species Encroachment in the Great Basin: Benefit of Conservation. *Journal of Soil and Water Conservation*. 69(2): 39A-44A.
- James, J.J., R. Sheley, T. Erickson, K. Rollins, M.H. Taylor, and K.W. Dixon. 2013. "A systems approach to restoring degraded drylands." *Journal of Applied Ecology* 50(3): 730-739.
- Taylor, M, K. Rollins, M. Kobayashi and R. Tausch. 2013. The Economics of Fuel Management: Wildfire, Invasive Plants, and the Evolution of Sagebrush Rangelands in the Western United States. *Journal of Environmental Management* 126 (2013) 157-173.
- Taylor, M, and K. Rollins. 2012. Using Ecological Models to Coordinate Valuation of Ecological Change on Western Rangelands for ex post Application to Policy Analysis, *Western Economics Forum* 11 (1): 13-21.
- Kobayashi, M, K. Moeltner and K. Rollins. 2012. Latent Threshold Analysis of Choice Data with Multiple Bids and Response Options, *American J. of Agricultural Economics* 94 (1): 189-208.
- Rollins, K. and M.H. Taylor. 2012. The Economics of Ecologically Based Invasive Plant Management on Great Basin Rangelands. *Rangelands*. 34(6):48-52.
- Evans, M.D.R., K. Rollins. 2012. The Frying Pan or the Fire: Public Attitudes about Using Herbicides to Manage Invasive Weeds, *Environmental Economics* 3 (3): 108-121.
- Kobayashi M.Rollins, K. and M.D.R. Evans. 2010. Sensitivity of WTP Estimates to Definition of 'Yes': Reinterpreting Expressed Response Intensity, *Ag. and Resource Econ. Revi*.39(1): 1-17.
- Rollins, K., A. Castledine and D.E. Dumitras. 2008. Congestion Effects: A Comparative Analysis of Multiple Backcountry Recreation Activities, *Canadian J. of Agricultural Economics* 56:95-116.
- Insley, M. and K. Rollins. 2005. On solving the multi-rotational timber harvesting problem with stochastic prices: a linear complementarity approach, *American Journal of Agricultural Economics* 87(3): 735-755.
- Rollins, K. and D. E. Dumitras. 2005. Estimation of Median Willingness to Pay for a System of Recreation Areas, *International Review of Public and Non Profit Marketing* 2(1): 73-84.
- Rollins, K., L. Heigh, and V. Kanetkar. 2004. Net Costs of Wildlife Damage on Private Lands, *Journal of Agricultural and Resource Economics* 29(3): 517-536.
- Boxall, P., K. Rollins and J. Englin. 2003. Heterogeneous Preferences for Wilderness Congestion, *Resource and Energy Economics* 25(2):177 195.

Rollins, K. and J. Shaykewich. 2003. Using Willingness-to-Pay to Assess the Economic Value of Weather Forecasts for Multiple Commercial Sectors, *Meteorological Applications* 10(1): 30-38.

- Heigh, J., G. Fox, D. McKenney, K. Rollins (2003). The Economic Impact of the 1998 Ice Storm on Eastern Ontario Woodlots: Case Studies of Red Pine and White Cedar, *Forestry Chronicle* 79(1): 31-44.
- Gordon, A. M., D. Larson, R. McBride, G. Lumis, K. Rollins, and S. Humphries. 2002. Learning About the Forest Using Alternative Curricula the Guelph Experience, *Forestry Chronicle* 78(3):1-7.
- Kidon, J., G. Fox, D. McKenney and K. Rollins. 2002. An Enterprise-level Economic Analysis of Losses and Financial Assistance for Eastern Ontario Maple Syrup Producers from the 1998 Ice Storm, *Forest Policy and Economics* 4(3): 201-211.
- Kidon, J., G. Fox, D. McKenney and K. Rollins. 2001. Economic Impact of the 1998 Ice Storm on the Eastern Ontario Maple Syrup Industry, *Forestry Chronicle* 77(4).
- Dyack, B., K. Rollins and A. Gordon. 1999. A model to calculate ex ante the threshold value of Interaction Effects Necessary for Proposed Intercropping Projects to be Feasible to the Landowner and Desirable to Society, *Agroforestry Systems* 44:197-214.
- Rollins, K. and A. Lyke. 1998. The Case of the Diminishing Marginal Existence Values, *Journal of Environmental Economics and Management* 36(3): pp 324-344.
- Rollins, K., W. Wistowsky. 1997. Benefits of Backcountry Canoeing in Ontario Wilderness Parks, *Journal of Applied Recreation Research* 22(1): 9-31.
- Rollins, K., O. Zachariah, J. Frehs and D. Tate. 1997. Resource Valuation and Public Policy: Consumers' Willingness to Pay for Improving Water Servicing Infrastructure, *Canadian Water Resources Journal* 22(2): 185-195.
- Rollins, K., W. Wistowsky and M. Jay. 1997. Wilderness Canoeing in Ontario: Using Cumulative Results to Update Dichotomous Choice Contingent Valuation Offer Amounts, *Canadian Journal of Agricultural Economics* 45(1): 1-16.
- Rollins, K. and H.C. Briggs. 1996. Moral Hazard, Externalities and Compensation for Crop Damage from Wildlife, *Journal of Environmental Economics and Management* 31(2): 368-386.
- Rollins, K., M. Forsyth, S. Bonti-Ankomah, and B. Amoah (1995). Economic Analysis of a White Pine Improvement Cut, *Forestry Chronicle* 71(4):466-472.

## **Book Chapters**

- Eiswerth, M., R. Epanchin-Niell, K. Rollins, and M.H. Taylor. 2016. "Economic Modeling and the Management of Brome Grasses: Accounting for Ecosystem Dynamics, Ecological Thresholds, and Spatial Interdependencies," Chapter 15 in the book, "Exotic Brome Grasses in Semi-Arid Ecosystems of the Western US: Assessing Current and Future Invasions, Impacts, and Management Alternatives," Matt Germino, Cini Brown, and Jeanne Chambers, eds. (pp. 429-456). New York: Springer. http://link.springer.com/book/10.1007%2F978-3-319-24930-8
- Rollins, K. and A. Lyke. "The Case of the Diminishing Marginal Existence Values," reprinted in *The Stated Preference Approach to Environmental Valuation Volume II: Conceptual and Empirical Issues*, Richard T Carson, editor. International Library of Environmental Economics and Policy, Ashgate Publishing Limited, Hampshire, UK, December 2007.
- Rollins, K. "Regulations, Policies and Management Guidelines Governing Manure Management and Water Protection," Chapter 2 in *The Management of Manure in Ontario with Respect to Water Quality, Walkerton Inquiry Commissioned Paper 6*, by M. Goss, K. Rollins, K. McEwan, J. R. Shaw, and H. Lammers-Helps. Queen's Printer for Ontario, Published by the Ontario Ministry of the Attorney General, Toronto, Ontario, 2002. 296pp.

Rollins, K. "Measuring Ecosystem Values," Chapter 16 in *Integrated Ecological Assessment Protocols Guidebook*, edited by P. Bourgeron, M. Jenson and G. Lessard. Springer-Verlag NY, 2001.

Gray, R. and K. Rollins. "Economic Incentives to Enhance and Preserve Wildlife Habitat in the Canadian Agricultural Landscape," Chapter 6 in *Exploring Alternatives: Potential Applications of Economic Instruments to Address Selected Environmental Problems in Canadian Agriculture*, edited by A. Weersink and J. Livernois. Published by the Environment Bureau, Agriculture and Agri-food Canada, April, 1996.

## **Selected Working Papers**

- Melkonyan, Tigran, Michael Price and Kimberly Rollins. 2019. Expert Opinion and Willingness to Pay for Goods of Ambiguous Quality: Evidence from Wine Tasting Field Experiments. <a href="https://www.researchgate.net/publication/333782581">https://www.researchgate.net/publication/333782581</a> Expert Opinion and Willingness to Pay for Goods of Ambiguous Quality Evidence from Wine Tasting Field Experiments
- Rollins, K and M. Kobayashi. "Embedding a Field Experiment in Contingent Valuation to Measure Context-Dependent Risk Preferences: Does Prospect Theory Explain Individual Responses to Wildfire Risk?" UNR Joint Economics Working Paper Series, WP 10-003
- Rollins, K., M. Kobayashi, M.D.R. Evans, and A. Castledine. "Willingness to Pay Estimation When Protest Beliefs Are Inseparable from the Public Good Definition". *UNR Joint Economics Working Paper Series*, WP 10-002.

## **Papers in Progress**

- With Muhammad Umer Zahid. "In Battle Against Invasive Species, Can Treatment be Worse than Disease?"
- With With Muhammad Umer Zahid and M. H. Taylor. "Willingness to Pay for Fuels Treatments for Forest Fire Risk Reduction: Application to Lake Tahoe
- With Lee, Gi-Eu and Loretta Singletary. "The value of temporary water transfers between lands on common irrigation ditches during drought."
- With Lee, Gi-Eu and Loretta Singletary. "Evaluating Alternative Institutions for Improving Water Allocation and Use Efficiency: Case Studies from the Western United States."
- With M.H. Taylor, "Embedding, anchoring, and ordering effects: when are different amenities attributes of a single bundled good?"

## **Presented Papers Published in Conference Proceedings**

- Grumstrup, Ethan, K. Rollins, K. Pram and S. Koirala, "<u>The Effect of Climate Change on Agricultural Production with Priority Water Rights</u>," American Agricultural Economics Association (AAEA) Annual Meeting conference paper coauthored presented July 2021
- Lee, Gi-Eu, Kimberly Rollins, and Loretta Singletary, "<u>Temporary Transfers and Water Use</u>
  <u>Efficiency for Prior Appropriations Agricultural Surface Water Rights: Empirical Evidence from Northwestern Nevada</u>," American Economic Association Virtual Annual Meeting conference paper presented by Rollins via Zoom on Monday, January 2021.
- Rollins, Kimberly, Gi-Eu Lee and Loretta Singletary. 2019. "Evaluating Alternative Institutions for Improving Water Allocation and Use Efficiency: Case Studies from the Western United States," selected presentation at the AAEA Annual Meeting, July 23, 2019, Atlanta GA.
- Rollins, Kimberly, Gi-Eu Lee and Loretta Singletary. 2018. An Empirical Analysis of the Influence of Permitted Place of Use Transfers on the Performance of Prior Appropriations Water Rights,"

selected for presentation at the  $6^{th}$  World Congress of Environmental and Resource Economists, Gothenburg, Sweden, June 25 - 29, 2018.

- Sisante, Angelo; Taylor, Michael H.; Rollins, Kimberly. 2018. "Money to Burn? Risk Attitudes and Private Investment to Mitigate Wildfire Risk." Presentation at the AAEA Annual Meeting, August 5-7, 2018, Washington DC.
- Lee, Gi-Eu, Kimberly Rollins and Loretta Singletary. 2018. "Farm-level Land and Water Use Decisions Institutional and Water Supply Constraints," Presentation at the AAEA Annual Meeting, August 5-7, 2018, Washington DC.
- Lee, Gi-Eu, Kimberly Rollins and Loretta Singletary. 2018. "Risk Management Potential and Water Misallocation under Prevalent Water Rights Institutions in the Western United States: A Generalized Model." Presentation at the AAEA Annual Meeting, August, 2018, Washington DC.
- Zhong, Hua, M. H. Taylor, Kimberly Rollins, Dale Manning, Chris Goemans. "Planning for a (Less) Rainy Day: Evaluating the Regional Welfare Impacts of Water Infrastructure Investment." Presentation at the AAEA Annual Meeting, August 5-7, 2018, Washington DC.
- Zhong, Hua, M. H. Taylor, Kimberly Rollins, Dale Manning, Chris Goemans. "Planning for a (Less) Rainy Day: Evaluating the Regional Welfare Impacts of Water Infrastructure Investment." Presentation at the W4133 (Western Regional Meeting), Feb, 2018, Austin, TX.
- Lee, G.-E., K. Rollins, and L. Singletary. 2017. An Empirical Analysis of Water Allocation Efficiency through the Prior Appropriation Doctrine: A Case Study in the Carson River Valley, Nevada. Presented at the AAEA Annual Meeting, Chicago, Illinois. July 30 August 1, 2017.
- Rollins, K. S., Lott, C., Brent, D., Taylor, M. H., Cook, J., Stoddard, S., International Water Resources Economics Consortium annual workshop, "Low hanging fruit: why consumers respond to social norms messaging," World Bank and International Water Resources Economics Consortium, World Bank, Washington DC, Washington DC, United States. (September 12, 2016).
- Rollins, K. S., Taylor, M. H., NAREA Annual Meeting, "Blurred Lines: When are Different Amenities in the Same Region Attributes of a Bundled Good?" Northeast Agricultural and Resource Economics Association, Annual Meeting, Bar Harbor, Maine, Bar Harbor, ME. (June 20, 2016).
- Rollins, K. S., Taylor, M. H., Annual meeting of the Multistate Research Project, W3133, "Benefits and Costs of Natural Resources Policies Affecting Ecosystem Services on Public and Private Lands.", "Valuing New Invasive Species Management Programs in the Context of Pre-existing Regional Water Quality and Resource Management Programs," Portland, Oregon, Portland, OR. (February 25, 2016).
- "Economic Valuation of Lake Tahoe Near-shore Water Quality" presented at the American Water Resources Association Annual Water Resources Conference, Denver Nov 16-19, 2015
- "Incentives for Investing in Public and Private Options for Reducing Wildfire Risks" presented at the 49th Annual Conference of the Canadian Economics Association, Ryerson University, Toronto, May 29, 2015.
- "Measuring Ecosystem Services Benefits for Benefit Cost Analysis" presented at the Society for Benefit Cost Analysis Annual Meeting, March 2015, Washington, D.C.
- "Integrating Ecology into Dynamic Economic Models to Support Rangeland Decision-making" presented at the 68th Annual Meeting of the Society for Range Management" Sacramento, CA, February 2, 2015.
- "Evaluation of controllable and uncontrollable drivers on residential water demand: an application to the Las Vegas Area." Presented at the Nevada Water Resources Association Annual Conference, February 6, 2014, Las Vegas NV.

Tchigriaeva, E., C. Lott and K. Rollins. 2014. "Modeling Multiple Factors of Residential Water Demand for Assessing Price and Non-Price Instruments under Climate Change: An Application to Las Vegas, Nevada," Presented at the 11<sup>th</sup> Annual International Water Resource Economics Consortium Meeting, The World Bank, Washington DC, September 7-9, 2014.

- Tchigriaeva, E., C. Lott and K. Rollins. 2014. "Modeling effects of multiple conservation policy instruments and exogenous factors on urban residential water demand through household heterogeneity." Presented at the AAEA Annual Meeting, Minneapolis, MN, July 27-29, 2014.
- Lott, C., E. Tchigriaeva and K. Rollins. 2014. "Residential water demand, climate change and exogenous economic trends." Presented at the AAEA Annual Meeting, Minneapolis, MN, July 27-29, 2014.
- Christman, L., K. Rollins and M. Taylor. 2014. "Homeowners' willingness to pay for private and public actions to reduce wildfire risk." Presented at the Agricultural and Applied Economics Association Annual Meeting, Minneapolis, MN, July 27-29, 2014.
- Taylor, M. H., L. Christman, Laine, K. Rollins. 2013. "Risk Externalities, Wildfire Hazard, and Private Investment to Mitigate Wildfire Risk in the Wildland-Urban Interface" AAEA Annual Meeting, Washington D.C., August, 4-6, 2013. http://ageconsearch.umn.edu/handle/149572
- Fadali, E., K. Rollins and S. Stoddard. 2012. "<u>Determining Water Values with Computable General Equilibrium Models.</u>" Presented at the Importance of Water to the United States Economy Technical Workshop, U.S. Environmental Protection Agency, Sept 19, 2012. Washington DC.
- Rollins, K., M. Taylor, M. Kobayashi, and R. Tausch. 2012. "The economics of fuel management: Wildfire, invasive plants, and the evolution of sagebrush rangelands in the Western United States," AAEA Annual Meeting, Seattle, WA, Aug, 2012.
- Rollins, K., M. Taylor, M. Kobayashi, and R. Tausch. 2012. "The economics of fuel management: Wildfire, invasive plants, and the evolution of sagebrush rangelands in the Western United States," European Association of Environmental and Resource Economists 19th Annual Conference, 27-30 June 2012, Prague, Czech Republic.

  www.webmeets.com/EAERE/2012/prog/viewpaper.asp?pid=702
- Taylor, M. and K. Rollins. 2012. "Contrasting Economic and Ecological Thresholds on Semi-Arid Rangelands: Implications for Management and Regulation," presented at the Western Economics Association International Conference, June 29 July 3, 2012, San Francisco, CA.
- Rollins, K., M. Kobayashi and M. Taylor. 2012. "Does Prospect Theory Explain Homeowner Underinvestment in Wildfire Preparedness?" presented at the Western Economics Association International Annual Conference, June 29 – July 3, 2012, San Francisco, CA.
- "Persistent Questions about Wildfire Economics, technical session presented at the Society of American Foresters National Convention," with J. Yoder, D. Rideout, Yeon-Su Kim, W. Covington, M. Taylor, October 24-28, 2012, Spokane WA.
- "Making Cents: Economic Benefits of Implementing an EBIPM Program," Society for Range Management 65th Annual Meeting, Spokane, WA, Jan 29-Feb 3rd, 2012.
- "Interactions among neighbors' actions on private incentives to reduce expected costs of wildfire threat," L. Christman, K. Rollins and M. Taylor, Presented at the W2133 Annual Conference: Benefits and Costs of Natural Resources Policies Affecting Public and Private Lands, February 22-24, 2012.
- "Effects of climate on the demand for municipal water for residential landscaping," C. Lott, K. Rollins, S. Stoddard. Presented at the W2133 Annual Conference: Benefits and Costs of Natural Resources Policies Affecting Public and Private Lands, February 22-24, 2012.

"The Value of Snow, The Value of Blue, valuation and the role of interlinked ecosystem services," K. Rollins and M. McCarthy. Presented at the W2133 Annual Conference: Benefits and Costs of Natural Resources Policies Affecting Public and Private Lands, February 22-24, 2012.

- Rollins, K., M.H. Taylor and M. Kobayashi. 2011. "Incorporating Ecological Thresholds in the Modeling of Economic Decision Making on Semi-Arid Rangelands," Association of Environmental and Resource Economists Inaugural Annual Summer Conference, June 9-10, Seattle, WA. <a href="https://www.webmeets.com/aere/2011/prog/viewpaper.asp?pid=458">www.webmeets.com/aere/2011/prog/viewpaper.asp?pid=458</a>
- "Ecology and Economics of Fire: Integrated Models," Interior West Fire Ecology Conference, Snowbird, UT, November 16, 2011.
- "Measuring the Economic Value of Fuel Treatments on Great Basin Rangelands," Interior West Fire Ecology Conference, Snowbird, UT, November 16, 2011.
- "Towards More Efficient Regulatory Design for Ecosystem Management in the Great Basin: Private Ranchers, Public Rangeland, and the Control of Invasive Weeds," USDA Economic Research Service PREISM Workshop, Washington D.C., May 17, 2011.
- "Integrating Market and Non-Market Benefits to Value Ecological Change in Agroecosystems: An Application to Invasive Weeds on Great Basin Rangelands," USDA NIFA Project directors meeting Ecosystem Services, Land-use change/climate/invasive species, Invasive Species, and Managed Ecosystems, Washington, DC, 7/20-21/11
- "Invasive Annual Weeds and Wildfire Suppression Costs in the Great Basin." Annual meeting of the Multistate Research Project, W2133, "Benefits and Costs of Natural Resources Policies Affecting Public and Private Lands, Albuquerque, NM. February 23-24, 2011.
- Kobayashi, M., K. Rollins, and M.H. Taylor (2010). "Ranching, Invasive Annual Grasses, and the External Costs of Wildfire in the Great Basin: A Stochastic Dynamic Programming Approach," AAEA, CAES & WAEA Joint Annual Meeting, Denver, CO, July 25-27, 2010. <a href="http://purl.umn.edu/61869">http://purl.umn.edu/61869</a>
- Rollins, K. and M. Kobayashi (2010). "Embedding a Field Experiment in Contingent Valuation to Measure Context-Dependent Risk Preferences: An Application to Wildfire Risk," AAEA, CAES & WAEA Joint Annual Meeting, Denver, Colorado, July 25-27, 2010. <a href="http://purl.umn.edu/61870">http://purl.umn.edu/61870</a>
- Kobayashi, M., N. Zirogiannis, K. Rollins, and M.D.R. Evans (2010). "Estimating Private Incentives for Wildfire Risk Mitigation: Determinants of Demands for Different Fire-Safe Actions," AAEA, CAES & WAEA Joint Annual Meeting, Denver, Colorado, July 25-27, 2010. http://purl.umn.edu/61867
- "Risk Preferences of Private Property Owners Facing Wildfire Threats" at the W2133 Annual Meetings, Tucson AZ, February 24-26 2010.
- Kobayashi, M., T. Harris, and K. Rollins, "Invasive Weeds, Wildfire, and Ranch Decision Making in the Great Basin," AAEA Annual Meeting, Milwaukee, WI, July 2009. http://ageconsearch.umn.edu/handle/49365
- Montblanc, E., K. Rollins, "The Value of Big Game Scouting: a Count Data Approach." Western Agricultural Economics Association annual meetings, Kauai HI, June 2009.
- "Incorporating Protests Responses into Valuation Estimates: Willingness to Pay to Prevent Ecosystem Losses from Invasive Species and Wildfire in Nevada," the International Symposium for Society and Resource Management, Burlington, VT, June, 2008
- "Valuation of Predictive Services Information using Wildfire Suppression Costs Diverted." at the National Seasonal Assessment Workshop for the Western States and Alaska, sponsored by the National Oceanographic and Aeronautic Administration, Boulder Co. April 21-24, 2008.

"Incorporating Protests Responses into Valuation Estimates: Willingness to Pay to Prevent Ecosystem Losses from Invasive Species and Wildfire in Nevada," W2133 Annual Meetings, Hawaii, February, 2008.

- Rollins, K., L. Rodriguez and M. Price, "Using Bid Design to Measure the Boundaries of WTP." Selected Paper, AAEA Annual Meeting, July 2007, Portland, Oregon, http://purl.umn.edu/9922.
- Rollins, K., L. Rodriguez "Invasive Species and Rangeland Fires in Nevada: Residents' Willingness to Pay to Reduce Risks," The joint Cooperative Ecosystem Study Unit Science Meeting, University of Utah, Salt Lake Utah, October 18, 2007.
- Rollins, K., L. Rodriguez "Using Bid Design and Anchoring Effects to Measure the Boundaries of WTP," European Association of Environmental and Resource Economists meetings in Thessaloniki, Greece, June, 2007.
- Rollins, K., L. Rodriguez "Using Bid Design and Anchoring Effects to Measure the Boundaries of WTP," International Symposium for Society and Resource Management meetings in Park City, Utah, June, 2007.
- Rollins, K., L. Rodriguez "Using Bid Design and Anchoring Effects to Measure the Boundaries of WTP," W1133 meetings in Richmond Virginia, March 30, 2007.
- Castledine, A., K. Rollins, "Multivariate Analysis of Public Values for Vegetation Management," Society for Rangeland Management annual meeting, Reno NV, February 15, 2007.
- Rodriguez, L. and K. Rollins, "Measurement and analysis of risk: Perceived risk, actual risk and beliefs about efficacy of mitigation efforts" SRM annual meeting, Reno NV, February 15, 2007.
- Evans, M.D.R. and K. Rollins, "Quantitative Analysis of Social Differences in Attitudes Regarding Vegetation Management in Nevada" SRM annual meeting, Reno NV, February 15, 2007.
- Rollins, K., M.D.R. Evans, S. Swanson, K. McAdoo, B. Schultz, R. Wilson and M.l Havercamp. "Statistical Portrait of Public Opinion on Vegetation Management in Nevada" SRM annual meeting, Reno NV, February 15, 2007.
- Evans, M.D.R., K. Rollins, S. Swanson, K. McAdoo, B. Schultz, R. Wilson and M. Havercamp. "Quantitative Analysis of Social Differences in Attitudes Regarding Vegetation Management in Nevada, Society for Rangeland Management annual meeting, Reno NV, February 15, 2007.
- Price, S., M.D.R. Evans and K. Rollins, "Diverse rationalaties: How opportunity costs of mitigation of fire risk varies among people with different values" Society for Rangeland Management annual meeting, Reno NV, February, 2007.
- Landis, M., K. Rollins, M.D.R. Evans. "Statistical Portrait of People who live in high fire-risk areas in Nevada," Society for Rangeland Management annual meeting, Reno NV, February, 2007.
- Christman, L., K. Rollins, M.D.R. Evans. "Community Networks Role in Modifying Fire Risk Mitigation Efforts, Observations and Recommendations for Extension Education." Society for Rangeland Management annual meeting, Reno NV, February, 2007.
- Evans, M.D.R., K. Rollins, "Response to Evacuation: Effects of Risk Perception, Trust and Mitigation," Society for Rangeland Management annual meeting, Reno NV, February, 2007.
- Swanson, S., B. Schultz, K. McAdoo, R. Wilson, K. Rollins, M.D.R. Evans, M. Havercamp, and A. Castledine, "Survey Implications for Extension Rangeland Programming," Society for Rangeland Management annual meeting, Reno NV, February, 2007.
- Castledine, A. and K. Rollins, "Invasive species and rangeland fires in Nevada: residents' willingness to pay to reduce risks," Proceedings for the 2006 International Symposium on Society and Resource Management, Vancouver British Columbia.

Castledine, A. and K. Rollins, "Invasive species and rangeland fires in Nevada: residents' willingness to pay to reduce risks" at the International Symposium on Society and Resource Management, Vancouver British Columbia, June 3-8, 2006.

- Evans, M.D.R., K. Rollins, A. Castledine and S. Price, "Risk and Engagement: Values, Networks, and Circumstances," 75<sup>th</sup> annual meetings of the Rural Sociology Society, Lexington Kentucky, August, 2006.
- Rollins, K., and L. Rodriguez. Managing Endangered Resources: The Sagebrush Biome in the Great Basin, International Symposium on Society and Resource Management. June 17-21, 2005, in Ostersund Sweden.
- "Estimating WTP to Plan for New Recreational Site Development in Ontario Canada," at the International Symposium on Society and Resource Management, June 17-20, 2005 in Ostersund, Sweden.
- Rodriguez, L. and K. Rollins. Managing Endangered Resources: The Sagebrush Biome in the Great Basin, 12th Ulvon Conference on Environmental Economics, Swedish University of Agricultural Sciences and the Umea University School of Business and Economics. June 21-23, 2005 in Umea Sweden.
- Dumitras, D.E., K. Rollins, S. Balazs, "The Contingent Valuation Method: A Case Study on a System of Recreation Areas," Bulletin USAMV-CN, 62/2005, ISSN 1454-2382, Proceedings for "Prospects for 3<sup>rd</sup> Millennium Agriculture, an International Symposium," University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca, Romania, 2005.
- Rollins, K., L. Rodriguez and A. Davis. 2005. "Managing Endangered Resources: The Sagebrush Biome in the Great Basin," Proceedings for the International Symposium on Society and Resource Management.
- Rollins, K, D. Dumitras, and A. Davis. 2005. "Estimating WTP to Plan for New Site Development in Ontario Canada," Proceedings for the International Symposium on Society and Resource Management.
- Dumitras, D.E. and K. Rollins, "Estimation of the Median Willingness to Pay for a System of Recreation Areas When the Payment Vehicle is an Increase in Cost," Bulletin USAMV-CN, 60/2004. Proceedings for "Prospects for 3<sup>rd</sup> Millennium Agriculture, an International Symposium," University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania, 2004.
- Shantz, P. W. Wistowsky, K. Rollins and L. Johnson. "The Economic and Social Benefits of the Nine Ontario Living Legacy Signature Sites," Parks Research Forum of Ontario Annual Meeting, Lakehead University, May 4 6, 2004.
- Rollins, K. "An efficient design to estimate welfare measures for a system of recreation areas," presented at the W-1133 Annual Meeting, Maui, HI, Feb 2004.
- Dumitras, D.E., K. Rollins, "Estimation of median willingness to pay for a system of recreation areas when the vehicle payment is an increase in cost," Prospects for 3<sup>rd</sup> Millennium Agriculture International Symposium, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania, Oct. 2004.
- "Paying for tolerance: Economic considerations of wildlife damage management policies, "People and Wildlife Symposium: Conflict or Co-existence?" London Zoological Society, London, England, Dec 5-7, 2002.
- "The effect of harvesting restrictions on the value of a timber investment with uncertain prices," Canadian Resource and Environmental Economics Study Group, Montreal, Canada, October 2002.

"The effect of harvesting restrictions on the value of a timber investment with uncertain prices," World Congress of Environmental and Resource Economists, Monterey, CA, June 2002.

- Huennemeyer, A-J and K. Rollins, "Private resource management and public trust: optimal resource conservation contracts under asymmetric information," World Congress of Environmental and Resource Economists, Monterey, CA, 2002.
- Brown, J. and K. Rollins, "A framework for valuing non-market valuation studies: an institutional Approach," World Congress of Environmental and Resource Economists, Monterey, CA, June 24-27, 2002.
- "The effect of harvesting restrictions on the value of a timber investment with uncertain prices," an invited paper presented at a workshop on Real Options, sponsored by CIRANO, Montreal, May 24, 2002.
- Rollins K. and L. Heigh. "An Appropriate Measure of Wildlife Damage," Presented at the AAEA Annual Meetings, Chicago, July, 2001.
- Webb, D., K. Rollins and P. Boxall, "Alaska National Wildlife Refuge," AAEA Annual Meetings, Chicago, July, 2001.
- "An Appropriate Measure of Wildlife Damage," Northeastern Agricultural and Resource Association Economics Annual Meeting, Bar Harbor, Maine, June, 2001.
- "Economic Characterization of Wildlife Damage: A Case Study of Ontario," Presented at Heartland Environmental Economics workshop, University of Iowa, Ames, Iowa, September 2000.
- "Recreation Valuation and Congestion: Empirical Analysis Using Panel Estimators," selected paper presented at the Canadian Agricultural Economics Association/Canadian Economics Association meetings, June 2000, Vancouver, B.C.
- "The Case for Considering Existence Values in Park Management," 4th International Conference of the Science and Management of Protected Areas Association, May 14, 2000, University of Waterloo, Ontario, Canada.
- Myles, I. and K. Rollins, "An Integrated Approach to Determining Optimal Human Use Levels in Canada's National Parks," Fourth International Conference of the Science and Management of Protected Areas Association, May 14, 2000, University of Waterloo, Ontario, Canada.
- Wistowsky, W. and K. Rollins, "Getting Good Results with Economic Valuation: Survey Design and Implementation in Park Management," 4th International Conference of the Science and Management of Protected Areas Association, May 2000, University of Waterloo, Ontario, Canada.
- Rollins, K., Peter Boxall and J. Englin, "The Costs of Congestion for Different Elements within a Recreational Experience," 4th International Conference of the Science and Management of Protected Areas Association, 2000 at the University of Waterloo, Ontario, Canada.
- Rollins, K. and J. Brown, "The Economic Context of Weather Information Generation and Dissemination" invited paper presented at the 34th Congress of the Canadian Meteorological and Oceanographic Society, University of Victoria, British Columbia, May 29-June 2, 2000.
- Heigh, J., G. Fox, D. McKenney and K. Rollins, "Economic Modeling of Ice Storm Damage on Red Pine Plantations in Eastern Ontario," Ice Storm Meetings, Carlton University, Ottawa Ontario, October 2000.
- Boxall, P., J. Englin and K. Rollins, "Recreation Valuation and Congestion: Empirical Analysis Using Panel Estimators," AAEA Annual Meetings, Tampa, Fla, August, 2000.

Beckett, A., K. Rollins and E. van Duren. "Using a Random Utility Model to Measure Willingness to Pay for 'Green' Attributes of Processed Food Products: Implications for Market Provision of Environmental Quality." AAEA Annual meetings, Nashville, TN, August 8-11, 1999.

- Zachariah, O. and K. Rollins. "Optimal Economic Management of Groundwater Quantity and Quality: An Integrated Approach," presented at the AAEA Annual meetings, Nashville, TN, August 1999.
- Huennemeyer, A.-J., R. McKitrick and K. Rollins. "Optimal Compensation for Endangered Species Protection under Asymmetric Information," 1999 Annual meetings, August 8-11, Nashville, TN. http://purl.umn.edu/21693
- Rollins, K., "Economic valuation of weather information dissemination services: two examples using the contingent valuation method," presented at the Workshop on Nowcasting and Decision Making, November 25, 1999, The Network for Computing and Mathematical Modeling, Montreal, Quebec.
- Rollins, K. and J. Shaykewich. "The Value of Weather Information Dissemination Services: A Cross-Sector Comparison," Canadian Agricultural Economics and Farm Management Society Annual Meetings, Vancouver, B.C. July, 1998.
- "Using Case Studies in Teaching Natural Resource and Environmental Economics," Organized Symposium for AAEA Annual Meetings in Salt Lake City Utah. August, 1998.
- Rollins, K., M. Jay, A. Kellock and R. Bishop. "Forest or Famine: A Dynamic Model and Empirical Investigation of Farm-level Decisions to Convert Tropical Forest to Pasture," AAEA Annual Meetings, Salt Lake City, Utah, August, 1998.
- Haider, W., K. Rollins, Don Anderson and Len Hunt. "Estimation of Existence Values Using Discrete Choice Conjoint Analysis and a Comparison with Contingent Valuation Estimates," AAEA Annual Meetings, Salt Lake City, Utah, August, 1998.
- Rollins, K. and A. Lyke. "The Case of the Diminishing Marginal Existence Values," AAEA Annual Meetings, Toronto, July 27-30, 1997.
- Rollins, K. and J. Shaykewich. "Contingent Valuation in the Assessment of Weather Information Systems," the Third European Conference on Applications of Meteorology, September 1997. Lindau, Germany.
- Dyack, B., K. Rollins and A. M. Gordon. "An Economic Analysis of a Temperate Intercropping System in Southern Ontario, Canada," IUFRO Agroforestry for Sustainable Land Use Workshop, Montpellier, France, June 23-28, 1997.
- Dyack, B., K. Rollins and A. M. Gordon. "An Economic Analysis of a Temperate Intercropping System in Southern Ontario, Canada," 5<sup>th</sup> North American Agroforestry Conference, Cornell University, Ithaca, New York, August 3-6, 1997.
- Rollins, K., J. Frehs, D. Tate and O. Zachariah. "Resource Valuation and Public Policy: The Case of Water Pricing," The Canadian Water Resources Association 49<sup>th</sup> Annual Conference, Quebec City, June 1996.
- Rollins, K., W. Haider and D. Anderson. "Existence Value of National Parks: A Comparative Analysis of Contingent Valuation and Discrete Choice Experiments," Sixth International Symposium on Society and Resource Management, Penn State University, May, 1996.
- Rollins, K. "Economic Instruments to Preserve and Enhance Wildlife Habitat in Canada's Agricultural Landscape," Symposium on Economic Instruments and Cross Compliance sponsored by Agri-food Canada Environment Bureau, Ottawa, January, 1996.
- Nailor, M., B. Chami, B. Dyack, A. Hunnemeyer, T. Islam, M. Raymond, Y. Syaukat and K. Rollins. "Aboriginal Self-Management and Fishery Resources: The Case of the Chippewas of Nawash," AAEA Annual Meetings, Toronto, July 27-30, 1997.

Rollins, K., J. Frehs, D. Tate and O. Zachariah. "Resource Valuation and Public Policy: The Case of Water Pricing," in Rational and Sustainable Development of Water Resources: Proceedings of the Canadian Water Resources Association 49<sup>th</sup> Annual Conference, edited by Delisle, C.E. and Bouchard, M.A. Canadian Water Resources Journal 6(1): 365-375. 1996.

- Rollins, K. "Agricultural Colonization and the Environment in the Lower Talamanca Region of Costa Rica" Presented at the Caribbean and Latin American Studies Conference, Toronto, November, 1995.
- Rollins, K.. "Commercial Forestry or Recreation? Valuing Alternative Uses of Forested Public Lands and Practical Policy Considerations". Presented at "Shaping Tomorrow's North: The Role of Tourism and Recreation," Centre for Northern Studies, Lakehead University, Thunder Bay, Ontario. October, 1995.
- Rollins, K. and W. Wistowsky. "Net Economic Benefits from Canoeing in Ontario Wilderness Parks," Forestry and The Environment: Economic Perspectives II. Banff, Alberta. October, 1994.
- Rondeau, D. and K. Rollins. "Information as a Source of Amenity Benefits: A New Application for the Contingent Valuation Method?" 5<sup>th</sup> International Symposium on Society & Resource Management, Colorado State University, June, 1994.
- Rollins, K.. "Economic Perspectives on Eastern White Pine Stand Management," *Proceedings for the Eastern White Pine and Red Pine Symposium*, Petawawa National Forestry Institute, Chalk River, Ontario. October 1993.
- Rollins, K.. "Economic Perspectives on Eastern White Pine Stand Management," the Eastern White Pine and Red Pine Symposium, Petawawa National Forestry Institute, Chalk River, Ontario, October, 1993.
- Rondeau, D. and K. Rollins. "Costly Information and Estimating Existence Values," presented at the Third Annual Canadian Workshop on Environmental and Resource Economics. Ottawa, October, 1993.
- Rollins, K.. "Net Social Costs of Preserving Biological Diversity," Forestry and the Environment: Economic Perspectives-An International Conference, March 9-12, Jasper, Alberta, Canada, 1992.
- Rollins, K.. "Canada Goose Damage Abatement and Farmer Compensation at Wisconsin's Horicon Marsh," International Canada Goose Symposium, Milwaukee, WI. April, 1991. Hosted by the U.S. Department of the Interior Fish and Wildlife Service and the Wisconsin Co-operative Wildlife Research Unit.
- Rollins, K. and R. Bishop. "Externalities, Uncertainty and Compensation for Crop Damage from Wildlife: A Principal-Agent Approach," abstract for contributed paper presented at AAEA annual meetings, *Proceedings of the American Journal of Agricultural Economics*, December, 1991.
- Rollins, K. "Externalities, Uncertainty and Compensation for Crop Damage from Wildlife: A Principal-Agent Approach," dissertation abstract in the *Proceedings of the American Journal of Agricultural Economics*, December 1991.

# **GRANTS AND CONTRACTS**

Year	Title and Source	Amount
2020-23	Integrated economic assessment of nutrient loadings in watersheds, best practice agricultural management, and environmental policies in the North East. NIFA/CAHNR Capacity Grant award	\$90,000
2020-24	NEWIR Manure: Nutrients, Energy, and Water Innovations for Resource Recovery. Co-PI, with Charles Coronella, Chemical Engineering, University of Nevada, Reno, PI. Subaward at UConn.	\$313, 052
2018-22	Evaluating Alternative Water Institution Performance in Snow-Dominated Basins: Are Food Production Systems at Risk from Changing Snow Water Availability? USDA/NIFA. Co-PI.	\$4,917,465
2018-20	Financial Considerations on the Annual per Unit Value of Water in Irrigated Agriculture: Agricultural Production Models for the Humboldt River Basin. Nevada Division of Water Resources. PI.	\$77,000
2016-18	Evaluation of the Effects of Nuclear Power Generation on the Lake Huron Lake Whitefish Fishery and the Economic and Community Development of the Saugeen Ojibway Nation, Ontario, Canada	\$33,884
2016	Price Elasticity Study, Las Vegas Valley Water District, Las Vegas, Nevada	\$6,100
2015-16	Evaluating Truckee Meadows Water Authority's Conservation Messaging, TMWA, PI.	\$69,002
2015-18	Rural to Urban Water Transfers, Climate Change and the Future of Rural Agricultural Economies in the Semi-Arid West: A Comparative Regional Analysis, USDA Agriculture, Food and Rural Affairs Initiative	\$498,393
2014-17	Evaluating the Economic Returns of Fuel Treatments at Multiple Spatial Scales: Accounting for Treatment, Timing and Ecological Conditions, Bureau of Land Management / Joint Fire Science Program	\$369,337
2014-15	Truckee Meadows Water Authority Conservation Plan Estimate of Water Saved. Truckee Meadows Water Authority.	\$82,013
2012-13	Economics of Fuel Treatments, with Michael Taylor. Northern Arizona University and Department of Interior.	\$13,379
2012-13	Vulnerability and Resilience of Urban Water Systems under Changing Climate – Economic Demand Study, Nevada EPSCOR.	\$79,310
2012-15	Scenic Beauty, Forest Health, and Wildfire Threat Reduction; The Nexus Between Private Values And Public Land Management Goals. McStennis.	\$67,143
2010-15	Integrating Markets and non-Market Benefits to Value Ecological Change in Agroecoystems. USDA NIFA/EPA STAR award 2010-65615-20643. PI	\$489,760
2009-11	"Modeling Rancher and Public Agency Decision-making to Coordinate Efforts to Battle Invasive Weeds and Wildfire on Nevada's Rangelands" – Nevada Agricultural Experiment Station. PI	\$97,299
2008-11	Institutional Design for Resource Allocation and Risk Sharing among Private and Public Sector Agents to Manage Invasive Grasses and	\$255,925

	Wildfire in the Great Basin – USDA ERS PREISM Competitive Grant Program, PI	
2008-14	"Economics of Annual Grass Invasion" - Agricultural Research Service	\$580,000
2008	Valuation of Products and Information Provided by Predictive Services in the Western Great Basin – U.S. Forest Service	\$10,000
2006-07	Public Opinions of Vegetation Management in Nevada, Economic and Social Analysis, with Mariah Evans, University Cooperative Extension.	\$13,800
2006	"Wildfire! A Survey of Nevadans' Risks, Responsibilities, and Actions", USDA Forest Service grant USDA/SFA/02/008, UNR Extension.	\$20,000
2005	With Derek Kanekis and Leah Wilds, Interdisciplinary Approaches to Environmental Problems Lecture series (Water in the West), UNR Academy for the Environment. PI	\$5,000
2005-11	"A Regional Experiment to Evaluate Effects of Fire and Fire Surrogate Treatments in the Sagebrush Biome," funded by the Joint Fire Science Program. Of the total of \$14 million, economics is \$598,879.	\$598,879
2005	"Nevada Vegetation Management Survey", Through the UNR Cooperative Extension Natural Resources Program. Co-PI	\$14,000
2005	Economic Value and Societal Impacts of Meteorological Information to the Nevada Agriculture and Land Resource Sectors, Hatch, 2005-06. PI	\$3,900
2005-08	"Economic Impacts of Changes in NV Elk Populations Across Multiple User Groups and Counties", Nevada Arid Rangeland Initiative, PI.	\$111,980
2003	Ontario Ministry of Natural Resources – Ontario Living Legacy - see below – project began in Canada and completed at UNR. This \$7,000 was part of the total project budget, but has a UNR OSPA project number).	\$7,000
2003-06	"Optimal Decision-making in Ecosystems Characterized by Wildfire and Uncertainty," Hatch, PI	\$76,050
2002	"Economic Analysis of Timber and Non-Timber Forest Resources under Alternative Silvicultural Practices," The Ontario Ministry of Natural Resources and Tembec, Ltd Renewal	\$25,000
2001-03	"The Social and Economic Benefits Associated with the Nine Ontario Living Legacy Signature Sites" 2001 – 2003. Ontario Ministry of Natural Resources. With Will Wistowsky, Phil Shantz and Lorne Johnson.	\$299,900
2001	"Economic Analysis of Timber and Non-Timber Forest Resources under Alternative Silvicultural Practices," The Ontario Ministry of Natural Resources and Tembec, Ltd.	\$40,000
2000	"The management of manure in Ontario with respect to water quality," The Commission of the Walkerton Inquiry-Ontario, Co-PI.	\$43,689
2000-01	Estimation of non-market Economic Benefits Generated by Media Services Offered by Environment Canada's Meteorological Services. Environment Canada Ontario Region, PI.	\$30,000
2000	Estimate Non-Market-Valued Off-Farm Benefits of Alternative Manure Handling Systems. Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Co-PI.	\$10,000

1999-2000	Develop wildlife damage survey and analyse results - Ontario Soil and Crop Improvement Association, PI.	\$16,000
1999	Agriculture and Wildlife Interactions - Wildlife Habitat Canada, PI.	\$10,000
1999-01	Agriculture and Wildlife Interactions - OMAFRA, PI.	\$36,000
1999-01	A Framework to Assess Incentive Compatibility of Best Management Practices – OMAFRA, PI.	\$48,000
1998	Economic Instruments to Preserve and Enhance Biological Diversity in Privately Managed Public Forests – Richard Ivey Foundation, PI.	\$112,600
1998	A Conceptual Economic Framework for Choosing Weather Information Services to be Provided by the Public Sector – Environment Canada, PI.	\$45,000
1997	The Value of Weather Information Services. Environment Canada, PI.	\$7,000
1997	Economic Investigation of Commercial/Subsistence Fishing Rights. Chippewas of Nawash First Nation, PI.	\$20,000
1997	Human Resources Development Canada: Summer Career Placements Program to hire an undergraduate assistant for the summer of 1997.	\$1,610
1996-99	Urban - rural water conflict: an economic analysis of Institutions Governing Groundwater Use in Ontario. OMAFRA	\$52,500
1996-97	Economic Analysis of Temperate Intercropping Systems. OMAFRA.	\$20,000
1996	Measuring the Demand for Water Quality Improvement and Conservation. Environment Canada	\$10,000
1996	Human Resources Development Canada: Summer Career Placements Program to hire an undergraduate assistant for the summer of 1996.	\$1,610
1995	"Green Processed Food Products: Perception versus Reality." with Dr. Erna van Duren. OMAFRA	\$8,000
1995	Human Resources Development Canada: Summer Career Placements Program to hire an undergraduate assistant for the summer of 1995.	\$1,636
1995	Development and Application of Non-market Valuation Methods to Non-Timber Uses of Ontario Forests. Ontario Ministry of Natural Resources.	\$14,000
1994-96	"Partnership for Environmental Stewardship" with environmental studies faculty at the University of Wisconsin and the University of Guadalajara The United States Information Agency, Co-PI.	\$150,000
1994	"Economic Benefits Assessment of Proposed Northern National Parks." Parks Canada	\$46,000
1994	Water Valuation. Canadian Wildlife Service Habitat Conservation Branch	\$5,000
1994	Estimation of Non-market Values of Wilderness in Ontario. SSHRC and University of Guelph Research Board.	\$3,000
1993-96	Agroecosystem Health: Characterization, Diagnosis and Management. 3 years. Eco-Research Tri-Council Secretariat. Co-PI. (Economics)	\$159,000

1993	Social Values of Wilderness in Ontario Richard Ivey Foundation, Toronto, Canada.	\$21,400
1993	Survey of Recreational Users in Algonquin's Wilderness Zones. Ontario Ministry of Natural Resources Forest Values Project.	\$14,000
1993	Economic Analysis of White Pine Management. Forestry Canada - Northern Ontario Development Agreement Sustainable Forestry Program.	\$6,600
1993	Estimating Non-Market Values of Ontario Wilderness. Mountain Equipment Coop.	\$2,000
1993	Estimation of Non-market Values of Ontario Wilderness. Social Sciences and Humanities Research Council of Canada (SSHRC) and University of Guelph Research Board	\$3,000
1992	Non-market Valuation Methods. New Faculty Grant, University of Guelph.	\$7,000

## **Research Reports and Technical Papers**

- Kim, Y., W. Covington, P. Ervin, R. Fitch, E. Kalies, D. Rideout, K. Rollins, A.J., Sanchez-Meader, M.H. Taylor, W. Wu, J. Yoder. 2013. The Efficacy of hazardous fuel treatments: A rapid assessment of the economic and ecologic consequences of alternative hazardous fuel treatments. Ecological Restoration Institute, Northern Arizona University. 28 pp.
- Lott, C., E. Tchigriavea and K. Rollins. (2013). "The effects of climate change on residential municipal water demand in Nevada," Technical Report for the Nevada EPSCoR Project: Vulnerability and Resilience of Urban Water Systems under a Changing Climate 2013/10-01.
- Rollins, K., M., Evans, and L. Christman. 2013. "Wildfire 2012 "Are You Ready?" Responsibilities, Actions and Summary of Responses," Technical Report ESNR 2013/06-03.
- Rollins, K., L. Christman, and C. Lott. 2013. "The 2011 Wildfire Risk/Hazard Assessment of Selected Nevada Communities," Technical Report ESNR 2013/06-01.
- Rollins, K., L. Christman, and H. Will. 2011. "Defensible Space Investment in Rural Nevada Communities: Data Documentation Report," Technical Report ESNR 2013/06-02.
- Rollins, K., M.D.R. Evans, and L. Christman. 2010. "The Value of Hunting and Impacts of Habitat Change in Nevada: Survey Summary Statistics," Technical Report UCED 2010/11-05.
- McIver, J.D., M. Brunson, S.C. Bunting, J.C. Chambers, N. Devoe, P. Doescher, J.B.Grace, D. Johnson, S. Knick, R. Miller, M. Pellant, F. Pierson, D. Pyke, K. Rollins, B. Roundy, E.W. Schupp, R. Tausch, and D. Turner. "The Sagebrush Steppe Treatment Evaluation Project (SageSTEP): A Test of State-and-Transition Theory" (2010Gen. Tech. Rep. RMRS-GTR-237. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 16 pp April 2010.
- Rollins, K., M.D.R. Evans, and L. Christman. 2010. "Wildfire! 2006, A Survey of Nevada's Risks, Responsibilities and Actions: Summary of Responses," Technical Report UCED 2010/11-01.
- Christman, L and K Rollins. "Simulating the Expected Value of Changing Spatial Distributions of Wildfire Resources in Response to Wildfire Probability Outlooks," Report submitted to the US Forest Service in partial fulfillment of the grant, "Valuation of Products and Information Provided by Predictive Services in the Western Great Basin," 2010.

Rollins, K., A. Castledine, S. Swanson, M.D.R. Evans, K. McAdoo, B. Schultz, M. Havercamp and R. Wilson, "The 2005 Nevada Rangeland Vegetation Survey General Public Questionnaire and Summary of Responses,", University of Nevada Cooperative Extension Special Publication 07-11, 48 pages. 2007.

- Rollins, K., M.D.R. Evans, L. Christman and M. Landis, "2006 Survey of Homeowners in Nevada's Extreme Fire Risk Communities: Incline Village Summary Statistics," report submitted in partial fulfillment of USDA/SFA/02/008, January 2007.
- Rollins, K., M.D.R. Evans, L. Christman and M. Landis, "2006 Survey of Homeowners in Nevada's Extreme Fire Risk Communities: All Communities Summary Statistics," submitted in partial fulfillment of USDA/SFA/02/008, January 2007.
- Insley, M., G. Fox and K. Rollins, "The Economics of Intensive Forest Management: A Stand Level Analysis for the Romeo Malette Forest in Ontario," A Report prepared for Tembec Inc, The Ontario Ministry of Natural Resources and ULERN. December 2002. 42pp.
- K. Rollins, and W. Wistowsky, "Development of Non-market Valuation Methodology to Estimate the Social and Economic Benefits Associated with the Nine OLL Signature Sites," interim report submitted to the Ontario Ministry of Natural Resources, for the research project "A study of the social and economic benefits associated with the nine Ontario Living Legacy Signature Sites," April, 2002.
- Insley, M. and K. Rollins, "The Economics of Intensive Forest Management: A Case study in Ontario," Report for the Living Legacy Trust, Ontario Ministry of Natural Resources and Tembec, Inc., as part of the Collaborative Research Project, "Economic Analysis of Timber and Non-Timber Forest Resources under Alternative Silvicultural Practices." March 2002, 27 pp.
- Huennemeyer, A-J and K. Rollins, "Private Resource /Management and Public Trust: Optimal Resource Conservation Contracts under Asymmetric Information," Working Paper 02/01, Department of Agricultural Economics and Business University of Guelph, Guelph, Ontario, December 2001. 52 pages.
- Rollins, K., "Economic Benefits from the Lake Huron Aboriginal Commercial Fishery and Saugeen Ojibway Joint Fisheries Co-Management Program", Report submitted to the Department of Indian and Northern Affairs Canada, P.O. Box 1960, Brantford, Ontario, September, 2000.
- Rollins, K., "Fisheries Economic Benefits" chapter 4 (pp 56-74) in *Review of Portions of New Jersey Pollutant Discharge Elimination System Renewal Application for the Public Service Electric & Gas Salem Generating Station*, Final report submitted to the Division of Water Quality, Bureau of Point Source Permitting, New Jersey Department of Environmental Protection, Trenton, NJ, Prepared by ESSA Technologies Ltd, Richmond Hill, Ontario, 2000. pp 56-74.
- Rollins, K.. Report to the Richard Ivey Foundation, 1999-2000 for the project, "Development of Economic Instruments to Preserve and Enhance Biological Diversity in Privately Managed Public Forests."
- Rollins, K. Report to the Richard Ivey Foundation, 1997-1998 for the project, "Development of Economic Instruments to Preserve and Enhance Biological Diversity in Privately Managed Public Forests."
- Rollins, K. and M. Ivy. "The Chippewas of Nawash First Nation Commercial Fishery: An Economic Analysis". Final report submitted to Chief and Council of the Chippewas of Nawash First Nation in partial fulfillment of the Project Economic Investigation of Commercial/Subsistence Fishing Rights: The Case of the Chippewas of Nawash First Nation. May, 1998.
- Rollins, Kimberly, Caroline Gunning-Trant and Audrey Lyke. "Estimating the Existence Values for Four Proposed Park Sites in the Northwest Territories". Final Report prepared for

- Environment Canada National Parks Systems Branch, National Parks Directorate, Dept of Canadian Heritage, 1998.
- Cavlovic, A., J. Forkes and K. Rollins, "The Economic Value of Environment Canada's WeatherRadio Service for Users in Maritime Communities of Atlantic Canada". Report prepared for the Policy Program and International Affairs Directorate, Atmospheric Environment Service, Environment Canada, Downsview, Ontario, in partial fulfillment of the Project, Estimating the Value of Public Services to Disseminate Weather Information: A Cross Sector Comparison. 74 pp, 1997.
- Forkes, J., A. Cavlovic and K. Rollins, "The Economic Value of Environment Canada's WeatherLine Service for Commercial Users in the Greater Toronto Metropolitan Area". Report prepared for the Policy Program and International Affairs Directorate, Atmospheric Environment Service, Environment Canada, Downsview, Ontario, in partial fulfillment of the Project, Estimating the Value of Public Services to Disseminate Weather Information: A Cross Sector Comparison, 1997.
- Zachariah, O., K. Rollins and J. Fitzgibbon. "Groundwater Management in Canada: Critical Review of Options for Improvement", Report No.3 for OMAFRA Project "Urban-rural Water Conflict: An Economic Analysis of Institutions Governing Groundwater Use in Ontario. 38 pp, 1997.
- Zachariah, O., K. Rollins and J. Fitzgibbon. "A Review of Policy Tools for Groundwater Management: A Summary of Benefit/Cost Implications". Report No. 2 for OMAFRA Project "Urban-rural Water Conflict: An Economic Analysis of Institutions Governing Groundwater Use in Ontario". 55 pp, 1997.
- Zachariah, O. and K. Rollins. "Economic Principles of Water Management". Report No. 1 for OMAFRA Project "Urban-rural Water Conflict: An Economic Analysis of Institutions Governing Groundwater Use in Ontario," 29 pp, 1997.
- Rollins, K and M. Ivy. "The Use of the Environmental Reference Inventory (EVRI) in the Environmental Assessment Process: The Case of Alpha Creek." Environmental Assessment Branch and the Environmental Economics Branch (a joint project) of Environment Canada, June 1997. 105 pp.
- Rollins, K. and A. Lyke. "The Case of the Diminishing Marginal Existence Values". University of Guelph, Department of Agricultural Economics and Business Working paper, 1997.
- Jay, M. and K. Rollins. "Advantages and Disadvantages of Zonal verus Random Utility Travel Cost Models". Report for project "Development and Application of Non-market Valuation Methods to Non-Timber Uses of Ontario Forests: Decision Support for the Forest Values Project," Submitted to Ontario Ministry of Natural Resources, 1996.
- Rollins, K., J. Frehs, D. Tate and O. Zachariah. "Resource Valuation and Public Policy: The Case of Water Pricing." University of Guelph, Department of Agricultural Economics and Business Working Paper, 1996.
- Rollins, K., M. Forsyth, S. Bonti-Ankomah, and B. Amoah. "Economic analysis of forestry management practices with an application to a white pine improvement cut in Ontario." NODA Note No 3. Natural Resources Canada Canadian Forest Service-Ontario, Catalogue NO. Fo 29-41/3-1994E, 1994.
- Rollins, K., M. Forsyth, S. Bonti-Ankomah, and B. Amoah. "Economic Analysis of Forestry Management Practices: An Application to a White Pine Improvement Cut". Report to the Canada-Ontario Northern Ontario Development Research and Technology Transfer Program, Project No. 4126. Pp.76, 1994.
- Rondeau, D. and K. Rollins. "Costly Information and Estimating Existence Values". University of Guelph, Department of Agricultural Economics and Business Working Paper. September, 1993.

Turvey, C.G., K. Rollins and A. Weersink. "An Assessment of the Agricultural Criteria of the Revised Step 6 Approach and Criteria for Durham, Metro/York and Peel Regions Landfill Site Search". A Report prepared for the Petticoat Watershed Agricultural Communities, May 1993.

- Rollins, K. and R.C. Bishop. "Economic Principles for Preserving Biological Diversity in Talamanca Costa Rica," University of Guelph, Department of Agricultural Economics and Business. Working paper. 1992.
- Rollins, K.. A Ranking System for Wisconsin Trout Properties. Administrative Report No. 24. Bureau of Fish Management, Wisconsin Department of Natural Resources, Madison, WI. October, 1985.

## **Invited Plenary, Seminars and Key-Note Talks**

- "Economics of Working Lands and Public Benefits" Keynote Address, the Annual Meeting of the Working lands Alliance, Hartford, CT. October 2019.
- "Socioeconomic Measurements for Wildfire," Invited speaker at NASA's Wildland Fire Applications Team Meeting, March 1, 2017, Boulder Co.
- "Economic net Benefits of Restoration" presented at the Native Prairie Restoration and Reclamation Workshop: Building Blocks of Restoration, Invited talk at the Saskatchewan Prairie Conservation Action Plan Meeting, Saskatoon, SK, Canada, January 28-29, 2015.
- "Criteria and Approaches to Prioritization of Protection Plan Work: An Economic Lens," Invited talk at the Species at Risk Management Committee Meeting, Canadian Wildlife Service, Gatineau, QC, Canada, January 13 15, 2015.
- "Incentivizing Species Protection and Biodiversity Conservation," Invited talk presented at the Economics and Environmental Policy Research Network Research Symposium, sponsored by Environment Canada, Sustainable Prosperity and the University of Ottawa, Ottawa, ON, Canada, October 15, 2014.
- "Prioritizing environmental values to support ecosystem management and benefit-cost decision-making." Invited Seminar, Environment Canada, Ontario Canada, October 29, 2013.
- "Prioritizing environmental values to support ecosystem management and benefit-cost decision-making." Presented to Ontario Ministry of Natural Resources, Peterborough, Ontario Canada, October 28, 2013.
- "Economic Perspectives on Visitor Use Management," Presented at the Centre for Applied Science in Ontario Protected Areas Meeting, Toronto, Ontario, Canada, January 31-Feb 1, 2013.
- "The Economic Viability of Sagebrush Treatments," Great Basin Consortium First Annual Conference, University of Nevada, Reno, November 8, 2011.
- "Measuring the Economic Value of Fire and Fire Surrogate Treatments," presented at Learning Together: SageSTEP Progress Report, Manager Workshop, May 25-26, 2010 in Tooele, Utah. http://www.sagestep.org/events/ut\_wkshp\_2010.html.
- "Estimating expected fire suppression cost savings due to vegetation management on pinyon pine and juniper invaded sagebrush rangelands." Nevada Pinyon-Juniper Restoration and Utilization Summit, Las Vegas, NV, December 8-9, 2010. www.nvpjpartnership.org/pinyon\_summit.htm
- "The Economic Costs of <u>Not</u> Controlling Noxious Weeds", Invited presentation at the Elko County Weed Summit, sponsored by UNCE Extension, April 28, 2009.
- "The Value of Big Game Hunting in Nevada," Invited presentation at the Nevada Board of Wildlife Commissioners, Nevada Divisions of Wildlife offices at Valley Road, Reno, NV, April 2008.

The SageStep Project and Economics Research", Invited presentation to the Northern Nevada Stewardship Group, Elko, Nevada, February 22, 2007.

- "Integrating Social/Economic and Cultural Resource Issues in Natural Resource Management." Invited presentation to the Great Basin CESU Annual Conference, March 2005, Desert Research Institute, Las Vegas, NV.
- "Economics of Wildfires", Invited Presentation for the 2005 Eastern Nevada Range Research Field Days, Ely Nevada, April 13 14, 2005
- "A Framework to Incorporate Non-market forest Values into Decision-making," Invited speaker by the Ontario Ministry of Natural Resources. Toronto, Canada, November 13, 2002.
- "The relationship between treaty rights, effective management and economics of Aboriginal commercial fisheries," Invited speaker at "Dibaaji Maadaa Giigoonyag Miinwaanh" (Let's Talk About Fishing Again), Aboriginal Inland Fisheries Conference, March 2001, Chippewas of Nawash First Nation, Cape Croker, Ontario.
- "Economic Characterization of Wildlife Damage: A Case Study of Ontario," Invited seminar presented at the Department of Rural Economy, University of Alberta, Edmonton, September 13, 2000.
- "Trade-offs between recreational use and preservation of grizzly bear habitat at Banff National Park," Seminar presented at the Nicholas School of the Environment, Duke University, March, 1999.
- "Measurement of Marginal Existence Values: Comparison of two Methods," seminar presented at the Department of Agricultural and Resource Economics, Ohio State University, October, 1998.
- "Economic Value of Wilderness in Relation to Market Valued Competing Uses of the Same Land Resources," Canadian Parks and Wilderness Society, Wildlands League, Ontario Federation of Naturalists. and World Wildlife Fund Canada, Toronto, Dec. 1997.
- "Economics of Sustainable Rural Communities," seminar presented at the University of Guelph Rural Planning Graduate Program. November, 1996.
- "Economic Principles for Preserving Biological Diversity and Promoting Economic Development in the Talamanca Region of Costa Rica." Seminar presented to graduate students and faculty of the Collaborative International Development Studies Program, University of Guelph. October, 1995.
- Keynote speaker for the Algonquin to Adirondacks conservation initiative workshop, hosted by Queen's University, Kingston Ontario, at the Queen's Biological Research Station.
- "Empirical Applications of Natural Resource Economics in Ontario," Invited workshop presentation at the Natural Resource Socioeconomic Network Meeting of the Ontario Ministry of Natural Resources. May 17, 2001, Peterborough, Ontario.
- "Economy and the Environment," invited speaker for the Ontario Field Naturalists, Saugeen Chapter. September 17, 2001, Durham, Ontario.
- "Integrated Management: Perspectives on Human Use Planning," Invited Speaker and workshop participant for Yoho and Kootenay National Parks, Parks Canada. October 16 18, 1998, Radium, BC.
- "Economic Values and Economic Impacts: What Do They Mean and How Are They Used?" Invited seminar presented to the Ontario Ministry of Natural Resources, Toronto, Dec 11, 1996.

## **Expert Testimony, Workshop Facilitation,**

California State Water Quality Control Board External Peer Reviewer, November 2019 – February 2021.

Panel Member for Walkerton Commission Expert Panel "Protection of Drinking Water Sources," May 3-4, 2001, Toronto, Ontario, Canada. Ontario Ministry of the Attorney General.

- Panel Member for Walkerton Commission Expert Panel "Provincial Regulation of Drinking Water Safety II," May 31-June 1, 2001. Toronto, Ontario Canada. Ontario Ministry of the Attorney General.
- Expert Witness for Economic Analysis of Aboriginal Commercial Fisheries in the Federal Court of Canada Trial Division, Toronto, in the case between Chippewas of Nawash First Nation and Her Majesty the Queen as represented by The Minister of Fisheries and Oceans and the Minister of Indian Affairs and Northern Development, May 24 25, 2000.
- Workshop Facilitator, 6<sup>th</sup> annual "Camp Resources," a resource-economics workshop sponsored by Duke University's School of the Environment, NC State University, the US EPA and Research Triangle Institute. Wilmington North Carolina, August 13-14, 1998.
- With Wictor Adamowizc, University of Alberta, lead one-day workshop on Economic Valuation for Economists at Environment Canada, Environmental Economics Branch. February, 1999 Hull, Ouebec.
- Workshop Facilitator and Resource Person at the Aboriginal Canadian Inland Fisheries Conference, Sponsored by the Assembly of First Nations, Sault Ste. Marie, Ontario, March, 1997.
- Developed and facilitated "Economic Implications of Alternative Groundwater Management Strategies", one of four concurrent sessions in the "Water Takings Workshop" sponsored by the Ontario Farm Coalition. The Kempenfelt Center, Barrie, Ontario. March 3-5, 1996.

# **University Teaching**

## **Undergraduate Courses Taught:**

- Environmental Economics, 2009, 2010, 2012, 2014, 2016, 2018
- Mathematics for Economics, University of Nevada, 2010
- Advanced Microeconomic Theory, University of Nevada, 2006
- Environmental and Natural Resource Economics Capstone Course, 2008, 2009
- Society and the Economic Value of Nature, University of Nevada, 2003, 2004, 2005, 2007
- Natural Resources, Environment and Economy, UNR, 2002, 2003F, 2003 SP, 2004
- Introduction to Natural Resource Economics, University of Guelph, 1993 1998, 2000, 2001.
- Advanced Natural Resource Economics, University of Guelph, 2001.

#### **Graduate Courses Taught:**

- Economics Methodology: Praxis and Practice University of Connecticut, 2020
- Environmental Economics University of Nevada, 2008, 2012, 2014, 2016, 2018
- Natural Resource Economics, University of Nevada, 2003, 2004, 2005, 2013, 2017, 2019
- Microeconomic Theory, University of Nevada, 2002.
- Economics of Renewable Resources University of Guelph, 1992 through 1997, 1999, 2000.
- Resource Economics and Management II Duke University, 1999

**Coordinator**: Natural Resource Economics PhD Field qualifying exam: 1994 through 1998, 2000.

### **Post-doctoral Research Associates Supervised:**

Ethan Grumstrup, 2020 - 21 Hua Zhong, 2016 - 2018 Gi-Eu Lee, 2016 - 2019 Margaret Insley (Forsyth), 1997-2000

## Soft-Funded (external Grant funded) Assistant Research Professors Supported

Ethan Grumstrup, 2021 - 2022 Michael Taylor, 2006 - 2015 Mimako Kobayashi, 2006 - 2011 Alison Davis, 2004 - 2005

## National and International Thesis/Dissertation Honors Awarded to Supervisees (7)

Outstanding Master's Thesis Award – Jeremy Brown, an MSc Student, for his thesis, "Value of Weather Services produced by Environment Canada's Meteorological Services," by the Canadian Agricultural and Farm Management Society, 2003.

Outstanding Master's Thesis Award - presented to Lori Heigh, an MSc Student under my supervision, for her thesis, "Landowners preferences and tolerance thresholds for wildlife damage on private lands," by the Canadian Agricultural and Farm Management Society, 2002.

Outstanding Doctoral Dissertation Honourable Mention – presented to Anne Huennemeyer, a PhD student under my supervision, for her dissertation, "Habitat Procurement under Asymetric Information: Optimal Incentives for Biological Diversity Preservation in Ontario Crown Forests," by the Canadian Agricultural and Farm Management Society, 2002.

Outstanding Master's Thesis Award – presented to Alexandra Beckett, an MSc under my supervision, for her thesis, "Green Consumerism, Perception versus Reality: The Case of Apple Juice," by the Canadian Agricultural and Farm Management, 1999.

Outstanding Master's Thesis Award – presented to Caroline Gunning-Trant, an MSc student under my supervision, for her thesis "Measuring the Existence Values of National Parks in the Northwest Territories," by the American Agricultural Economics Association, 1997.

Outstanding Master's Thesis Award, Honourable Mention – The Gunning-Trant thesis was also awarded Honourable Mention by the Canadian Agricultural and Farm Management Society, 1997.

Outstanding Master's Thesis Award, Honourable Mention – presented to William Wistowsky, an MSc student under my supervision, for his thesis, "Benefits of Backcountry Canoeing in Ontario Wilderness Parks" by the Canadian Agricultural and Farm Management Society, 1995.

#### **LEADERSHIP AND SERVICE:**

### National and Regional Boards, Panels, and Committees:

Grants Review Panel member for NASA, 2020.

Topic Leader, Resource and Environmental Policy Analysis, for professional presentations at the American Agricultural Economics Association Annual Meetings , 2019 and 2020.

Grants Review Panel member for USDA/NIFA, 2018.

Grants Review Panel member for USDA/NIFA, 2016.

Grants Review Panel member for NASA, 2016.

Editorial Board Member, Agricultural and Resource Economics Review. 2014-18.

Associate Editor, Agricultural and Resource Economics Review (ARER) 2014 – 2018.

Associate Editor, Journal of Outdoor Recreation and Tourism, Elsevier. 2012-15.

President, USDA/NIFA Multistate Project W2133 "Benefits and Costs of Natural Resources Policies Affecting Ecosystem Services on Public and Private Lands," 2011-12.

Responsible for writing the proposal to re-charter USDA/NIFA Multistate Project W3133 for the five-year period 2012-2017. 2012.

Vice President, USDA/NIFA Multistate Project W2133 "Benefits and Costs of Natural Resources Policies Affecting Ecosystem Services on Public and Private Lands." 2010-11.

Member, Quality of Commication Award Subcommittee, American Agricultural Economics Association (AAEA). 2013 – 2016.

Chair, Western Agricultural Economics Association (WAEA) Outstanding MS Thesis Award Committee, 2012

Member, American Agricultural Economics Association Selected Papers Committee, 2011

Member, International Symposium, Society & Resource Management Scientific Committee, 2006-07

AAEA Outstanding MS Thesis Award committee, 2007, 2008, 2009

WAEA Outstanding MS Thesis Award committee, 2005-2006

AAEA outstanding research discovery award committee 2006, 2007

WAEA Outstanding Teaching Award committee, 2005-6

Member, North Eastern Agricultural and Resource Econ Association selection committee for distinguished service award

Member, Resources Development Subcommittee of the Ontario Agricultural Research Services Coordination Committee. 1994 - 1998.

Member, Outstanding MSc Thesis Award Committee, Canadian Agricultural Economics and Farm Management Society, 1998.

# University

## **University of Connecticut, University Service (2019 - present):**

Member, Carbon Neutral Task Force, 2023 to current

Member, Solve Climate by 2030, 2020 to current

Member, Advisory Group, TEALE Series 2020-21

## **University of Connecticut, College Service (2019 - present):**

Member, Steering Committee, CAHNR Strategic Visioning Committee 2019-2010.

## **University of Nevada, Reno University Service (2002 - 2019):**

Member, Faculty Senate Research and Grants Committee, 2015-18

Member, University Dismissals Appeals Committee, 2015 - 18

Chair, Graduate Program Subcommittee, Faculty Senate Research and Grants Committee, 2016-18

Member, University Core Curriculum Committee for Quantitative Reasoning, 2015 - 17

Member, University Committee for Strategic Plan for UNR Research, 2012 -2013

Member, University Professional Development Leave Committee, 2011 - 2013

Member, Search Committee, Natural Resource and Environmental Sciences Dept Chair, 2010-11

Member, College By-laws committee, 2008 to 2011

Appointed Member, Faculty Senate Committee to review the College of Liberal Arts, 2008

Appointed Member, Provost's Committee to Review the UNR IRB 2008

Member, University of Nevada IRB panel, 2008 - 2010

Member, College Search Committee for Associate Dean, Academic Affairs

Member, University Intercultural Council, 2005

Chair, University Diversity Awareness sub-committee, 2005

Member, Social Science subcommittee of the UNR Core Curriculum Committee, 2002-2004

Appointed Member, Academy of the Environment Steering Committee, 2005-2006

Member, Academy of the Environment sub-committee to develop Environmental Studies Major

Member, Academy of the Environment grants/Awards Committee, 2005-2006

Appointed Member - Dean's Committee to write Proposal for Plant Materials Center, 2003

#### **University of Nevada, Reno Department Service (2002 - present):**

Member, Departmental Personnel Committee (2018-2021)

Chair, Department Search Committee, 2017-18

Chair, Department Undergraduate Curriculum Committee, 2017

Member, Department Undergraduate Curriculum Committee, 2015-26

Member, Department Search Committee, 2016-17

Chair, Department Search Committee, for 3 searches (1 tenure track, 2 post-docs), 2015-16

Member, Department Search Committee, (4 search committees), 2015-16

Member, Department Undergraduate Curriculum Committee, 2015 - 2017

Member, Department Strategic Planning Committee, 2014 - 16

Member, Department By-Laws Committee, 2011-2013

Director, Department Graduate Studies, 2008 to 2011

Member, Department Graduate Committee 2003-2011

Program Advisor/Coordinator, Undergraduate Program, 2002-05 (revamped majors, and developed recruitment strategy that *doubled the number of majors in three years*)

Member, Resource Economics Department Search Committees (several over 2002 - 2009)

Member, Departmental Personnel Committee (2004-2006)

## Service, University of Guelph (1992 - 2002):

Member, Faculty Senate 1999-2002

Member, Committee to develop forestry academic program proposal, 2001-2002

Library Committee, 1996-1998

Advisor, Undergraduate Environmental Economics and Policy major, BSc. Env.

Member - Bachelor's of Environmental Studies Program Committee, 1996 to 2002

Chairperson, Space Allocation Committee, 1996.

Member, Dairy Policy Chair Search Committee, 1997 - 1998.

Member, Undergraduate Studies Committee, 1994 -2002.

Member, Graduate Studies Committee, 2001-2002.

Member, Departmental Tenure and Promotion committee, 1997 to 1999, 2001-2002.

Member, Search committee for Department Administrative Assistant, 1998.

Member, Search committees for three faculty positions, 1999-2002.