

## Education

Ph.D., Management Science, Graduate School of Business, University of Chicago, 1997.

M.B.A., Graduate School of Business, University of Chicago, 1991.

B.S., Industrial Engineering, Northwestern University, 1981.

## Expertise

Operations research, linear and integer programming, combinatorial optimization, stochastic optimization, dynamic programming, network algorithms, data analytics, clustering algorithms.

Resource allocation, pricing mechanisms, combinatorial auctions, smart markets. Vehicle and personnel scheduling, scheduling of training, transportation optimization, facility location.

The flow of work, industrial engineering, just-in-time production, bucket brigades, process improvement, complexity reduction, productivity improvement.

Supply chains, supply chain risk, supply chain metrics, logistics; inventory management, excess inventory, critical inventory; production management, capacity planning.

Problems of the commons, environmental economics, pricing of externalities, managing transaction costs, tradable rights related to the environment, basic hydrology (ground and surface water, runoff, impervious cover), basic atmospheric science and science of climate change, ecological connectivity. Nutrition. Buildings and energy efficiency.

Disaster response and recovery, readiness and responsiveness, training readiness, material readiness, military processes related to readiness and logistics, civilian government processes for disaster response.

## Work experience

Operations Researcher, Adjunct, RAND Corp., Santa Monica, CA, Mar 2021 to present.

Senior Operations Researcher, RAND Corp., Santa Monica, CA, Jan 2013 to Mar 2021.

Visiting Associate in Economics, Division of the Humanities and Social Sciences, California Institute of Technology, Oct-Dec 2011, unpaid sabbatical appointment.

Senior Lecturer Above the Bar, Management Science, Dept. of Management, Univ. of Canterbury, Christchurch, New Zealand, Jan 2009 to Dec 2012.

Senior Lecturer, Management Science, Dept. of Management, Univ. of Canterbury, Christchurch, NZ, Jan 2004 to Dec 2008.

Lecturer, Management Science, Dept. of Management, Univ. of Canterbury, Christchurch, NZ, Aug 1998 to Dec 2004.

Research Fellow, Naval Postgraduate School, Monterey, CA, July 1997 to July 1998. Supported by the National Research Council (National Academy of Sciences), Washington, D.C.

Modelling analyst, Unisys Corp., Elk Grove Village, IL, Oct 1994 to June 1997.

Consultant, RAND Corp., Systems Sciences Dept, Santa Monica, CA. Studied readiness of Army battalions to quantify the relationship of readiness to input resources. June 1990 to June 1997.

Lecturer in Management Science, GSB, Univ. of Chicago. Spring 1991 to Summer 1992.

Intern, RAND Corp., Systems Sciences Dept., Santa Monica, CA. July to September 1990.

Operations Analyst, U.S. Postal Service, Operations Planning, Central Region Headquarters, Chicago, IL. June 1986 to September 1988.

Industrial Engineer, U.S. Postal Service, Engineering Div., Central Region Headquarters, Chicago, IL. July 1981 to June 1986.

## Teaching and Mentoring

Professor, Pardee RAND Graduate School, 2014-present.

- 2021, Policy Analysis for Climate Change, with R. J. Briggs and Scott Stephenson.
- 2014 and 2016, Smart Markets and Combinatorial Auctions.
- 2017, Computational Methods for Operations Research and Data Science (using Python), with Jia Xu.

PRGS PhD committees: Lauren Kendrick, 2018; Katie Loa, 2021

RAND Summer Associates: Jonathan Welburn, 2013; Amelia Musselman, 2014; Armando Bernal, 2015; Chelsea Kolb, 2016; Alejandro Vigo Camargo, 2019; Rhoann Kerh, 2019.

University of Canterbury

- PhD co-supervisor to Indra Mahakalanda 2011-2013. Antonio Pinto 2009-2013. Ranga Prabodanie 2006-2011. Mohammad Babul Hasan 2004-2007. Hamish Dean 1999-2001 – 1<sup>st</sup> place, ORSNZ Young Practitioner Prize 2001; Hamish manages ShapeShifter Technology, Ltd.
- Co-supervisor, Master of Commerce, Barbora Gabzdylova 2007. Tsung-Han Chang 2002-2003. Supervised 25 student projects, including Honours, Masters, and MBA.
- Principal, Water Markets Research Group, University of Canterbury, 2005-2012. Various administrative duties, University of Canterbury, 1998-2011.

Masters' thesis advisor, Naval Postgraduate School, Monterey, CA. Supervised three students' theses: scheduling Navy air squadron training, planning ammunition movements in the Western Pacific fleet, and privatizing military housing on the Monterey Bay peninsula. September 1997 to November 1998.

## Refereed articles

Raffensperger, John F.; "A price on warming with a supply chain directed market," *Discover Sustainability*, 2:2, 2021, <https://link.springer.com/article/10.1007/s43621-021-00011-4>.

Raffensperger, John F.; Girardini, Josh.; Mastbaum, Jason, "New metrics and visualizations to help the Army reduce customer wait time", RR-2778-A, 2020.

Raffensperger, John F., R.A. Ranga Prabodanie, Jill A. Kostel, "A smart market for nutrient credit trading to incentivize wetland construction," *J. of Hydrology*, v. 546, Mar 2017, pp. 248–261, <http://www.sciencedirect.com/science/article/pii/S0022169417300045>

Brauner, Marygail K., John F. Raffensperger and Edward W. Chan, "Inventory reduction without regret: balancing storage and rebuy costs, RAND PE-138-A, RAND Corp., 2015.

Loredo, Elvira N., John F. Raffensperger, Nancy Y. Moore, "Measuring and managing Army supply chain risk: a quantitative approach by item number and commercial entity code," RAND RR-902-A, RAND Corp., 2015.

- Lumbroso D. M., C. Twigger-Ross, J. Raffensperger, J. J. Harou, M. Silcock, and A. J. K. Thompson, "Stakeholders' Responses to the Use of Innovative Water Trading Systems in East Anglia, England," *Water Resources Management*, Apr 2014.
- Pinto, Antonio, John F. Raffensperger, Thomas Cochrane and E. Grant Read, "A proposed smart market design for sediment discharge," *J. Water Resources Planning and Mgmt*, 139:1, pp. 96-108, Jan 2013.
- Prabodanie, R. A. Ranga, John F. Raffensperger, E. Grant Read and Mark W. Milke, "LP models for pricing diffuse nitrate discharge permits," *Annals of Ops. Res.*, Aug 2011.
- Raffensperger, John F., "Matching Users' Rights to Available Ground Water," *Ecological Economics*, v70, n6, pp. 1041-1050, 15 April 2011.
- Raffensperger, John F. , and Thomas Cochrane, "A Smart Market for Impervious Cover," *Water Resources Management*, v. 24, no. 12, pp. 3065-3083, Sep 2010.
- Raffensperger, John F., "The Generalized Assortment and Best Cutting Stock Problems," *Int'l. Trans. of Operations Research*, v17, n1, Jan 2010, pp. 35-49.
- Prabodanie, Ranga, John F. Raffensperger, and Mark Milke, "A Pollution Offset System for Trading Non-point Source Water Pollution Permits," *J. of Env. and Resource Economics*, 2010, v45 n4, pp. 499-515.
- Raffensperger, John F., Mark W. Milke, and E. Grant Read, "A Deterministic Smart Market Model for Ground Water," *Operations Research*, v57, n6, Nov-Dec 2009, pp. 1333-1346. Winner best paper prize, INFORMS ENRE section, 13 Nov 2011.
- Gabzdylova, Barbora, John F. Raffensperger, and Pavel Castka, "Sustainability in the New Zealand wine industry: drivers, stakeholders and practices," *J of Cleaner Production*, 17:11, July, 2009.
- William, Gerard, Mark Milke, and John F. Raffensperger, "Survey of New Zealand Hydrologists on Water Policy and Information Needs," *NZ Journal of Hydrology*, 48:1, pp. 1-12, 2009.
- Raffensperger, John F., and Richard, Pascal, "Constructive complexity: a metric for spreadsheet design," *Int. J. of Inf and Ops Mgt Education*. 2008, v2, n4, pp. 388-406.
- Hasan, Md. Babul, and Raffensperger, John F., "Two Pricing Methods for Solving an Integrated Commercial Fishery Planning Model," *ORiON*, v24, n2, 2008, pp. 115-130, <http://www.orssa.org.za>.
- Raffensperger, John F., "The Least-Cost Low Carbohydrate Diet Is Expensive," *Nutrition Research*, 28:1, Jan 2008, pp. 6-12.
- Raffensperger, John F. and Schrage, Linus, "Scheduling Training for a Tank Battalion: How to Measure Readiness," *Computers & Operations Research*, 25:6, June 2008, pp. 1844-1864.
- Hasan, Md. Babul, and Raffensperger, John F., "A Decomposition-Based Pricing Method for Solving a Large-Scale MILP Model for an Integrated Fishery," *J. of Applied Math and Decision Sciences*, 2007, Article ID 56404.
- Lee, Jon, and John F. Raffensperger, "Using AMPL for teaching the TSP," *INFORMS Transactions on Education*, 7:1, 2006.
- Hasan, Md. Babul, and Raffensperger, John F., "A mixed integer linear program for an integrated fishery," *ORiON*, 22:1, June 2006.
- Dean, H.T., Tu, Y., Raffensperger, J.F., "An improved method for calculating the no-fit polygon," *Computers & Operations Research*, 33:6, pp. 1521-1539, 2006.
- Raffensperger, John F., Milke, Mark, "A Design for a Fresh Water Spot Market," *Water Science & Technology: Water Supply*, 5:6, pp. 217-224, 2005.

Raffensperger, John F., and Richard, Pascal, "Implementing Dynamic Programs in Spreadsheets," *INFORMS Transactions on Education*, 5:2, 2005. See also Raffensperger, John F., and Richard, Pascal, "Errata: Implementing Dynamic Programs in Spreadsheets", 5:2 Jan 2005

Raffensperger, John F., "New Guidelines for Spreadsheets," *International Journal of Business and Economics*, 2:2, pp. 141-154, 2003.

Raffensperger, John F., and Scott H. Swords, "Scheduling Prowler Training," *Naval Research Logistics*, 50, 4, 289-305, 2003.

Raffensperger, John F., "Slow Snow Sliders - the Newsboy hits the New Zealand ski slopes," *Management Case Quarterly*, v. 5, no. 4, p. 47, 2002.

Raffensperger, John F., and Schrage, Linus, "A new paradigm for measuring military readiness," *Military Operations Research*, v3, n5, pp21-34, 1997.

Raffensperger, John F., *Measuring and improving the readiness of emergency organizations*, Ph.D. dissertation, Graduate School of Business, University of Chicago, 1997.

Raffensperger, John G., M.D., and Raffensperger, John F., "Who Should Pay for Resident Education?" *J. of Pediatric Surgery*, XIX, 6, 1984.

## Book

Raffensperger, John F., and Mark W. Milke, *Smart Markets for Water Resources: A Manual for Implementation*, Springer International Publishing, 2017, ISBN 978-3-319-55007-7, <http://www.springer.com/us/book/9783319550077>.

## Book chapters

Raffensperger, John F., "The value of dietary supplements," book chapter, in *Nutrients, Dietary Supplements, and Nutraceuticals*, ed. Ronald Ross Watson Ph.D., Univ. of Arizona, Springer, 30 Nov 2010.

Raffensperger, John F., "Just-in-time or JIT, Kanban," invited contribution, in HG Daellenbach & RL Flood (Ed.), *The Informed Student Guide to Management Sciences*, p. 159, Cornwall, GB: Thomson Press, 2002.

Raffensperger, John F., "Spreadsheets," invited contribution, in HG Daellenbach & RL Flood (Ed.), *The Informed Student Guide to Management Sciences*, p. 253, Cornwall, GB: Thomson Press, 2002.

## Conference papers – refereed

Raffensperger, John F., "Matching Users' Rights to Available Ground Water with a Smart Market," 2nd International Conference on Water Economics, Statistics & Finance, Alexandroupolis, Greece, 3–5 July 2009.

Raffensperger, John F., "PLOVER 2k: Planning Openings and Values for Ellesmere's Resilience," keynote presentation, Living Lakes Symposium 2, Lincoln University, Lincoln, New Zealand, 4 Nov 2009, <http://www.wet.org.nz/wp-content/uploads/2010/11/Summary-of-2009-symposium-Aug-2010.pdf>.

Prabodanie, R. A. Ranga, John F. Raffensperger, and Mark W. Milke, "Simulation-Optimization Approach for Trading Point and Non-point Source Nutrient Permits." 18th World IMACS / MODSIM Congress, Cairns, Australia 13-17 July 2009.

Prabodanie, Ranga, and Raffensperger, John F., "Cleaning the Water: a Smart Market for Nitrates," MODSIM Conference 2007, Christchurch NZ.

Plagmann, Manfred, and Raffensperger, John F., “A Smart Market for Ground Water using the Eigenmodel Approach,” MODSIM Conference 2007, Christchurch NZ.

Gabzdylova, Barbora, John F. Raffensperger, and Pavel Castka, “Corporate social responsibility: environmental concern in New Zealand’s wine industry,” Australian & New Zealand Marketing Academy (ANZMAC) Conference 2007, Dunedin, NZ, 3-5 December 2007.

John F. Raffensperger and Mark Milke, “How to Solve Our Water Crisis: a Demo Spot Market for Ground Water,” 23 May 2006, MODFLOW and More 2006 Conference, International Ground Water Modeling Center, Colorado School of Mines, Colorado.

Hasan, M.B., and Raffensperger, J.F., “Relaxation and Decomposition Methods for Solving MILP for an Integrated Fishery” 2006 Computational and Technology Application Conference, from 2-5 July 2006, Townsville, Queensland, Australia.

John F. Raffensperger and Mark Milke, “National Workshop on Consent Trading: New Options for New Zealand,” *NZHS-LAH-NZSSS Auckland 2005 Conference*, 28 Nov 2005.

John F. Raffensperger and Mark Milke, “Trading of consented groundwater allocations via auctions,” *Auckland: NZHS-LAH-NZSSS Auckland 2005 Conference*, 28 Nov - 2 Dec 2005.

Raffensperger, John F., Milke, Mark, “A Design for a Fresh Water Spot Market,” Rethymno, Crete: *International Water Association Conference on Economics, Statistics, and Finance*, July 2005.

Chang, H., Raffensperger, J.F. and Churcher, N., “Displaying linear programs and their solutions with XML and SVG,” *InVis.au2004: Proceedings of the Australasian Symposium on Information Visualisation*, vol. 35 of *Conferences in Research and Practice in Information Technology*, Christchurch, NZ, 2004.

Raffensperger, John F., “New Guidelines for Spreadsheet Style,” *Proc. of the European Symposium on Spreadsheet Risks*, Amsterdam, July, 2001, pp. 61-76.

## Conference papers and presentations – unrefereed

Raffensperger, John F., R. A. Ranga Prabodanie, Jill A. Kostel, “‘Smart Markets’ for Nutrient Trading,” ACES Conference, Jacksonville, FL, Dec 2016.

Créquer, John, and John F. Raffensperger, “Innovative operational research methods to create the 2013 Census field scheme,” 2014 Joint NZSA+ORSNZ Conference, 23-26 Nov 2014, Victoria University of Wellington, New Zealand.

Pinto, A., Raffensperger, J.F., Cochrane, T.A., Dye, S. and Read, E.G., “Propuesta de un modelo de mercado restringido ‘Smart Market’ para usos del suelo considerando lluvias inciertas.” Universidad de Concepción, Concepción, Chile: X Congreso del Instituto Chileno de Investigación Operativa Optima 2013 VI Red-M, 27-30 Oct 2013.

Raffensperger, John. F., and Read, E. Grant, “Smart Markets for Hydrological Resources: Mechanisms and Applications,” invited presentation (full expenses), Carleton Connect Water Research Workshop, University of Melbourne, Australia, 21-22 Oct 2013.

Raffensperger, John F., and Darren Lumbroso, “Notes on a UK water market demo,” ORNSZ Conference 2012, Wellington, New Zealand, 3-4 Dec 2012.

Dye, Shane, P.R. Jackson, R. James, I. Mahakalanda, A. Pinto, J.F. Raffensperger, E.G. Read, R.A. Read and S.R. Starkey, “Integrated Modelling of Electricity and Water Markets: A Progress Report From Canterbury,” EPOC Winter Workshop, Auckland, NZ, 2012, [www.epoc.org.nz/ww2012.html](http://www.epoc.org.nz/ww2012.html).

Raffensperger, John F. “Smart Markets for Hydrological Resources,” presented to:

- 8 & 23 Sep 2011, Mgmt Engg Dept and Env Engg Dept., Denmark Technical University.
- 27 Sep 2011, Dept. for Environment, Food and Rural Affairs, UK, at Univ. College London.
- 17 Dec 2011, Division of Humanities & Social Sciences, California Institute of Technology.

Starkey, S.R., S. Dye, E.G. Read, J.F. Raffensperger, and B.J. Ring, "Enhancing Urban Water Allocation: An Evolving Framework for Trading Stochastically," 19th Triennial IFORS Conference, Melbourne, Australia, 10-15 July 2011.

Raffensperger, John F., "How water markets will reduce risk and drive infrastructure investment," invited presentation, Water Infrastructure Investment & Planning Conference, 27-28 June 2011, Wellington, NZ. I gave the same presentation again the same day to the Ministry of Agriculture & Forestry, Wellington, NZ.

Raffensperger, John F., "Outline of a market for ecological connectivity," ORSNZ Conference, Auckland, NZ, 29-30 Nov 2010.

Teasley, Rebecca, John Raffensperger, and Mark Milke, "A Smart Market for Ground and Surface Water with Hydropower Generation," ASCE World Environmental and Water Resources Congress, 16-20 May 2010, Providence, Rhode Island.

Teasley, Rebecca, Mark Milke, John Raffensperger, Marieh Zargar, "Common Pool Water Markets and Their Role in Facilitating Land Use Change in Drying Climates," poster presentation, American Geophysical Union, Fall Meeting, 13-17 Dec 2010, San Francisco.

Zargar, Marieh, Rebecca Teasley, Mark Milke, John F. Raffensperger, "Varying Water User Demand Curves in a Groundwater Smart Market," NZ Hydrological Soc. Conf., Dunedin, NZ, 6-10 Dec 2010.

Raffensperger, John F., "A Smart Market for Ground & Surface Water," English and Chinese, given at (1) Peking Univ. Center for Water Research, Beijing, 22 June 2010, and (2) Chinese Univ. of Geosciences, Wuhan, 2 July 2010.

Raffensperger, John F., "The Forever Fair Water Consent Trading System," invited presentation, NZ Fresh Water Management Forum, 15-16 Feb 2010, Wellington, New Zealand.

Raffensperger, John F., and Hughey, Kenneth, "Modelling Values of Lake Ellesmere," ORNSZ Conference 2009, Christchurch, New Zealand, 3-4 Dec 2009, pp. 148-158.

Prabodanie, R. A. Ranga, and Raffensperger, John F., "Can Markets in Agricultural Discharge Permits be Competitive?" ORNSZ Conference 2009, Christchurch, New Zealand, 3-4 Dec 2009, pp. 182-189.

Pinto, Antonio, John F. Raffensperger, Thomas Cochrane, and Shane Dye, "A Proposed Smart Market for Impervious Cover Runoff under Rainfall Uncertainty," Proceedings of the ORNSZ Conference 2009, Christchurch, New Zealand, 3-4 Dec 2009, pp. 190-199.

Raffensperger, John F., "A fast column generation algorithm for the regionalization problem," 20th International Symposium on Math Programming, Chicago, IL, 23-28 Aug 2009.

Raffensperger, John F., "Generalized smart markets for water resources," INFORMS Conference, Washington D.C., 12-16 Oct 2008.

Pinto, Antonio, Thomas Cochrane, John F. Raffensperger, "A Proposed Smart Market for Sediment Discharge," ORSNZ Conference, Victoria University, Wellington, NZ, 24-25 Nov 2008.

Raffensperger, John F., "A new algorithm for the collection area problem," ORSNZ Conference, Victoria University, Wellington, NZ, 24-25 Nov 2008.

Raffensperger, John F., "Measuring & improving training readiness," to Joseph Angello, Deputy Secretary of Defense for Readiness, Office of the Secretary of Defense, Washington D.C., 16 Oct 2008.

Raffensperger, John F., "Minimum spanning tree in a spreadsheet? The limits of spreadsheet modeling," INFORMS Conf., Washington D.C., 12-16 Oct 2008.

Raffensperger, John F., "Water allocation & hydrological optimization," invited lecture, Dept. of Civil Engineering, Michigan Technological University, 3 Oct 2008.

Raffensperger, John F., "An operations research framework for water ethics," invited presentation, PKU-UNESCO Int'l Symposium on Ethics of Water Resource Mgmt, 6 Nov 2007, Beijing, China.

Raffensperger, John F., "Smart Markets - the Answer to Australia's Water Crisis," Conference of the Australian Society for Operations Research, 3-5 Dec 2007, Melbourne, Australia.

Presented the "Forever Fair Consent Trading System" to the following groups:

- Tasman District Council, to staff, farmers, farm industry reps, irrigation associations, councillors, ministerial representatives, and Maori, 23-5-2005.
- Hawkes Bay Regional Council, staff and councillors, 24-8-2005.
- Environment Waikato, to staff, farmers, farm & irrigation reps, councillors, & Maori, 3-11-2005.
- Canterbury Federated Farmers regional presidents, 21-11-2005.
- Marlborough District Council staff, 6-12-2005.
- Environment Canterbury senior staff, 7-12-2005.

"Water Sustainability and Water Markets," Golden Key Society, Univ. of Canterbury, key note address, 5 July 2006.

Raffensperger, John F., "The minimum data required to allocate water," NZ Hydrological Society Conference 2006, Christchurch, NZ, Nov 2006.

Raffensperger, John F., "A tutorial on hydrogeological optimisation," ORSNZ Conference, Christchurch, NZ, Nov 2006.

Milke, Mark, and John F. Raffensperger, "The Use of Spot Markets for Water Allocation," Water2006 Conference, Auckland, New Zealand, 1-4 Aug 2006. (Conference paper)

John F. Raffensperger and Mark Milke, "The Forever Fair Consent Trading System, Keynote Address," Univ. of Tokyo, Tokyo, Japan: Univ. of Tokyo Water Forum, 28 Oct 2005.

Raffensperger, John F., "Application of column splitting to the travelling salesman problem," Auckland, NZ: *ORSNZ 39th Annual Conference*, 28-29 Nov 2004.

John F. Raffensperger, "Solving the TSP with decomposition-based pricing," Copenhagen: *Math Programming Symposium*, 18 August 2003.

Raffensperger, John F., "Decomposition-Based Pricing for the One-Dimensional Cutting Stock Problem," Auckland, NZ: *ORSNZ Conference*, Nov 2002.

Raffensperger, John F. "Principles for Successfully Writing and Auditing Spreadsheets," Prof. Short Course, Centre for Continuing Ed., Univ. of Canterbury, 13 Nov 2001, 21 Jun 2002, 30 Oct 2002.

Raffensperger, John F., "Classifying merino wool to maximise revenue," Wellington, *Procs. 35th ORSNZ Annual Conference*, 1-2 Dec 2000. 241-6.

Raffensperger, John F., "The marriage of dynamic programming and integer programming," Waikato, *Procs. ORSNZ 34th Annual Conference*, 1999, pp. 49-58.

Raffensperger, John F. "The New Guidelines for Writing Spreadsheets," INFORMS Conference, Cincinnati, May 1999.

Raffensperger, John F., “A New Paradigm for Measuring Military Readiness”. Monterey, CA: *Military Operations Research Society Symposium*, May 1998.

Raffensperger, John F. “The Readiness Problems: Scheduling Training for Emergency Organizations,” *Math Programming Symposium*, Lausanne, Switzerland, August 1997.

Raffensperger, John F. “Modelling Unit Training Schedules,” Office of the Secretary of Defense, presented with RAND Corp., Washington, D.C., June 1996.

## Unrefereed publications

Manheim, David, John F. Raffensperger, Jia Xu, “Regulating drone airspace using ‘smart markets’,” TechCrunch, 19 Apr 2016, <https://techcrunch.com/2016/04/19/regulating-drone-airspace-using-smart-markets>.

Kostel, Jill A., J. Monchak, M.D. Tomer, R.L. Bingner, A. T. Bank Lentz, A. Ando, N. Brozović, J. F. Raffensperger, R.A. Ranga Prabodanie, F. Wohlgezogen, E. Zajac, and D. Hey, “Feasibility Assessment of a Nutrient Trading Market in the Big Bureau Creek Watershed,” final report for U.S. Environmental Protection Agency, Targeted Watershed Grant WS-00E71101, The Wetlands Initiative, 2014.

Raffensperger, John F., “A Tutorial on Smart Markets,” invited article to *ORbit*, Sep 2011, the newsletter for the Danish O.R. Society. After publication in *ORbit*, the same article was invited for the *IFORS Newsletter* 5:6, Dec 2011, ISSN 2223-4373 [http://ifors.org/newsletter/december2011\\_f.pdf](http://ifors.org/newsletter/december2011_f.pdf).

Raffensperger, John F., & John George, “A Touching Belief in the Market,” a comment on “A Derivative Approach to Endangered Species Conservation,” 30 Apr 2009, unpublished.

Pinto, Antonio, Thomas A. Cochrane, and John F. Raffensperger, “Smart Markets and Improved Management of Sediment Discharge,” Technical Report for Auckland Regional Council, 2008. 42pp.

Raffensperger, John F., and Mark Milke, “Nutrient trading in Lake Taupo: getting it right,” *National Business Review*, 14 Mar 2008, p. 49.

Raffensperger, John F. and Milke, Mark, *The Forever Fair Consent Trading System: Analysis of On-Line Auctions for Groundwater*, grant report to the NZ Hydrological Society, 2005.

Raffensperger, John F., “Death by PowerPoint,” *ORSNZ Newsletter*, 1 March 2002, 1-3.

Raffensperger, John F., *The Art of the Spreadsheet*, an online book, 2008, <http://john.raffensperger.org/ArtOfTheSpreadsheet/index.html>

## Professional Service

Member, International Cost Estimating and Analysis Association, certified Professional Cost Estimator.

Associate Editor for *INFORMS Transactions on Education*, 2010 to 2012.

Member of and referee for the Scientific Committee for 2nd International Conference on Water Economics, Statistics, and Finance, 3-4 July 2009, Thrace, Greece.

Refereed two PhD theses and three Masters theses.

Referee for *Systems Journal*, *Military Operations Research*, *Aus. J. of Agricultural & Resource Economics*, *Agricultural Water Management*, MODSIM Conference 2007, *Journal of Applied Mathematics and Decision Sciences*, *Proceedings of the European Spreadsheet Interest Group*, *International Journal of Business and Economics*, *Computers & Operations Research*, *International Journal of Entrepreneurship and Small Business*.

ORSNZ Canterbury Branch Chairman, 2000-2002. ORSNZ Council member, 2000-2002.

Editor for the Proceedings of the ORSNZ Conference Twenty Naught One, Nov 2001.

Organizer for the ORSNZ Conference Twenty Naught One, Christchurch, Nov 2001.

Editor for the ORSNZ Newsletter, Sep 2001 to Mar 2003.

Session Chair, "Unifying Measures of Readiness," INFORMS Conference, San Diego, May 1997.

## Website

Test.wagmu.com, a website to help people improve their nutrition and lower the cost of their diet. The website uses a variety of operations research techniques, including linear programming and forecasting. Built as a proof of concept.

## Awards, honors

2019 RAND Medal Award, Key Contributor, Puerto Rico Recovery Planning project.

2019 RAND Medal Award, Key Contributor, Army Pinks and Greens Uniform project.

2011 Best Publication Award in Energy, INFORMS, with Mark Milke and E. Grant Read.

1997 Fellowship, National Research Council, National Academy of Sciences.

1985 USPS Certificate of Appreciation.