

Further information for intending overseas PhD students

From 2006 overseas PhD students pay the same rates as New Zealand nationals, which is currently \$NZ 4,000 per year for an Earth Sciences PhD

Panels

Currently on panel of assistant editors for *Natural Resources Research*. Previously served on assistant editorial panel of *Mathematical Geology*. Presently serving on an IAHS panel on tertiary education in hydrology.

Selection of student theses supervised

Zhang, Yangyang (current) *Environmental time series analysis for signals of climatic shifts in the Waikato region, New Zealand* (MSc).

Bardsley, Candice. (current). *Association between lightning timing and frequency with river discharge response in New Zealand at various time and space scales* (PhD).

Purdie, Jennie. (current) *Seasonal inflow forecasting of New Zealand's South Island hydro lakes*. (PhD).

Vavae, Hilia (current). *Drought forecasting in Tuvalu, South West Pacific* (MSc).

Jelley, Neil. (current) *Implications of groundwater movement in a fractured coastal aquifer* (MSc).

Nelder, Guinevere. (current) *Empirical and derived equations for application to discharge measurements from drowned weirs* (MPhil).

Bear, S (2005) *Hydrological evaluation of pumped storage in the Onslow-Manorburn basin* (MSc).

Kerr, J (2004) *Assessing the hydrological implications of the Wilsonville quarry expansion at Hikurangi, Northland* (MSc).

Bigham, A.D. (2003) *A feasibility study on deep well injection as a means of disposing Kawerau effluent* (MSc).

Brown, E.J. (2002) *Evaluating the potential of constructed groundwater systems to improve the water supply operations of Auckland City, New Zealand* (PhD).

Campbell, A.B. (2002) *Efficiency evaluation for the Waitaki hydropower scheme* (MSc).

Harman, J.J. (1999) *Drought hazard and risk within the Waikato region* (MSc).

- Whatnall, N.J. (1999) *Groundwater flow dynamics beneath a wastewater irrigation site, Hautapu, Cambridge* (MSc).
- Brown, N.Z., (1998) *The Wheao power scheme: toward operational and predictive techniques for optimal water resource use* (MSc).
- Brown, J.E. (1998) *Development of the stillstand rain gauge for recording rainfall stratigraphy* (MSc).
- Peacock, A.J. (1998) *Water and nitrogen budgets of a wetland within the Rotorua land treatment system, New Zealand* (MSc).
- Choudhry, A.C. (1998) *Surface hydrologic modeling and GIS: a case study of the Kaimai hydropower project catchment, New Zealand* (PhD).
- Chapman, M.G., (1998) *Investigation of the dynamics of the Waiwera geothermal groundwater system, New Zealand.* (MSc).
- Henderson, S., (1996). *Evaluating models for aquifer storage change* (MSc).
- Charteris, S.A., (1995) *An investigation into improving Lake Rotorua water quality using Waikato River water in a pump-storage scheme* (Dip. App. Sci.).
- Hadfield, J.C., (1995) *A groundwater contaminant tracer study at Waitahanui, Taupo* (MPhil),
- Pollard, S., (1995) *Head-constrained aquifer treatment of effluent and lake water* (B.Sc. Tech. report).
- Keyte, M.J., (1994) *Droughts in Northland* (MSc).
- Pritchard, L.J., (1989) *New Zealand hydrology: a review* (MSc)

Scientific publications

- Bardsley, W.E., Purdie, J. A permutation test for invalidation of predictive models. *Journal of Hydrology* (under review).
- Bardsley, W.E., Campbell, D.I. An expression for land surface water storage monitoring using a two-formation geological weighing lysimeter. *Journal of Hydrology* (in press).
- Bardsley, W.E., (2007) Note on y-truncation: A simple approach to generating bounded distributions for environmental applications. *Advances in Water Resources*, v.30, p.113-117.
- Sophocleous, M., Bardsley, W.E. and Healy, J., (2006) A rainfall loading response recorded at 300 meters depth: Implications for geological weighing lysimeters. *Journal of Hydrology*, 319, p.237–244.

Bardsley, W.E., (2005) Note on the pumped storage potential of the Onslow-Manorburn depression, New Zealand *Journal of Hydrology (NZ)*, 44, p.131-135.

Bardsley, W.E. and Liu, S., (2003) An approach to creating lumped-parameter rainfall–runoff models for drainage basins experiencing environmental change. *IAHS Publ.* 281, p.67-74.

Bardsley, W.E., (2003) Temporal moments of a tracer pulse in a perfectly parallel flow system. *Advances in Water Resources* v.26, p.599-607.

Brown, E.J. and Bardsley, W.E., (2002) A model-based evaluation of horizontal wells for improving the functionality of an urban reservoir system. *Natural Resources Research*, v.11, p.197-206.

Bardsley, W.E. and Choudhry, S., (2000) An approach to estimating hydro power system income gain from computerized water scheduling. *Natural Resources Research*, v.9 (3), p.215-222.

Bardsley, W.E. and Campbell, D.I., (2000) Natural geological weighing lysimeters: calibration tools for satellite and ground surface gravity monitoring of subsurface water mass change? *Natural Resources Research*, v.9 (2), p.147-156.

Tomer, M.D., Knowles, S.F., Fenton, J.A., Bardsley, W.E. and Oliver, G.R. (1999) Soil water, ground water, and wetland seepage within an effluent-irrigated hillslope. *Journal of Hydrology (NZ)*, v.38, p.97-120.

Bardsley, W.E. and Pearson, C.P. (1999) An experiment in subjective graphical quantile estimation applied to the generalised extreme value distribution. *Hydrological Sciences Journal*, v.44, p.399-405.

Bardsley, W.E., Jorgensen, M.A., Alpert, P. and Ben-Gai, T. (1999) A significance test for empty corners in scatter diagrams. *Journal of Hydrology*, v.219, p.1-6.

Brown, E.J. and Bardsley, W.E. (1999) Recording rainfall stratigraphy: a modified storage gauge for measuring rainfall events. *Journal of Hydrology*, v.216, p.137-144.

Bardsley, W.E., (1998) Comment on a paper by Z. Yenihayat. *Journal of Mathematical Geology*, v.30, p.257.

Bardsley, W.E., (1997) Comment on papers by Guo *et al.* and Mkhandi *et al.* *Journal of Hydrology*, v.199, p.403.

Bardsley, W.E. and Campbell, D.I., (1995) Water loading: a neglected factor in the analysis of piezometric time series from confined aquifers (Note). *Journal of Hydrology (NZ)*, v.34, p.89-93.

Bardsley, W.E., (1995) Using groundwater for hydro electric power generation. *Journal of Hydrology (NZ)*, v.34, p.1-14.

- Bardsley, W.E., (1995) Comment on "A Stochastic Model Relating Rainfall Intensity to Raindrop Processes".
Water Resources Research, v.31, p.1607-1609.
- Bardsley, W.E., (1994) Against objective statistical analysis of hydrological extremes.
Journal of Hydrology, v.162, p.429-431.
- Bardsley, W.E., (1994) Power from groundwater.
Journal of Hydrology, v.162, p.191-196.
- Bardsley, W.E., and Campbell, D.I.C., (1994) A new method for measuring near-surface moisture budgets in hydrological systems.
Journal of Hydrology, v.154, p.245-254.
- Bardsley, W.E., (1992) Discussion of "Estimation of Storativity from Recovery Data", by P.N. Ballukraya and K.K. Sharma.
Ground Water, v.30, p.272-273.
- Bardsley, W.E., (1991) Graphical estimation of the Theis drawdown function.
Journal of Hydrology, v.128, p.357-367.
- Bardsley, W.E., and Khatep, M.M., (1991) Estimating work-magnitude associations in Earth surface processes.
Mathematical Geology, v.23, p.591-608.
- Bardsley, W.E., (1991) Some thoughts on the automated generation and selection of hypotheses in the Earth sciences.
Mathematical Geology, v.23, p.241-256.
- Bardsley, W.E., (1991) Reliability-based time axes for flood data presentation.
Journal of Hydrology, v.119, p.389-391.
- Bardsley, W.E., Rao, C.R.A. and Bardsley, M.E., (1990) Earth-rotation power stations?
The Mathematical Scientist, v.15, p.63-64.
- Bardsley, W.E., (1990) On the maximum observed hailstone size.
Journal of Applied Meteorology, v.29, p.1185-1187.
- Bardsley, W.E., Mitchell, W.M. and Lennon, G.W., (1990). Estimating future sea level extremes under conditions of sea level rise.
Coastal Engineering, v.14, p.295-303.
- Bardsley, W.E., Major, T.J., and Selby, M.J., (1990) Note on a Weibull property for joint spacing analysis.
International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts, v.27, p.133-134.
- Bardsley, W.E., (1989) Graphical estimation of extreme value prediction functions.
Journal of Hydrology, v.110, p.315-321.
- Bardsley, W.E., (1989) A simple parameter-free flood magnitude estimator.
Hydrological Sciences Journal, v.34, p.129-137.

- Bardsley, W.E., (1989) Using historical data in nonparametric flood estimation. *Journal of Hydrology*, v.108, p.249-255.
- Bardsley, W.E., (1988) Comment on "Nonparametric Flood Estimation" by Kaz Adamowski. *Water Resources Research*, v.24, p.890.
- Bardsley, W.E., (1988) Toward a general procedure for the analysis of extreme random events in the Earth sciences. *Mathematical Geology*, v.20, p.513-528.
- Bardsley, W.E., (1987) A detail-preserving smoothing technique with application to high-resolution ocean core data. *Computers and Geosciences*, v.13, p.433-438.
- Bardsley, W.E., and Sneyd, A.D., (1987) Least-squares estimation of equation parameters for predicting drawdown from a single pumped well. *Journal of Hydrology*, v.93, p.153-161.
- Bardsley, W.E., and Briggs, R.M., (1987) Estimation equations for F in fractional crystallisation and partial melting. *Mineralogical Magazine*, v.51, p.171-172.
- Bardsley, W.E., and Manly, B.F.J., (1987) Transformations for improved convergence of distributions of flood maxima to a Gumbel limit. *Journal of Hydrology*, v.91, p.137-152.
- Khatap, M.M., and Bardsley, W.E., (1987) A simple recursive formula to replace Wilson's graphical lake routing. *Journal of Hydrology*, v.91, p.371-372.
- Bardsley, W.E., Sneyd, A.D., and Hill, P.D.H., (1985) An improved method of least-squares parameter estimation with pumping-test data. *Journal of Hydrology*, v.80, p.271-281.
- Bardsley, W.E., and Manly, B.F.J., (1985) Note on selecting an optimum raingauge subset. *Journal of Hydrology*, v.76, p.197-201.
- Bardsley, W.E., (1984) Note on the form of distributions of precipitation totals. *Journal of Hydrology*, v.73, p.187-191.
- Bardsley, W.E., and Petch, R.A., (1984) Note on estimating the unit hydrograph (effective rainfall unknown). *Journal of Hydrology*, v.73, p.383-388.
- Bardsley, W.E., and Khatap, M.M., (1984) A general model for nucleation temperatures of supercooled water droplets. *Journal of the Atmospheric Sciences*, v.41, p.856-862.
- Khatap, M.M., Fitzharris, B.B., and Bardsley, W.E., (1984) Water vapor transfer over the Southwest Pacific: mean patterns and variations during wet and dry periods. *Monthly Weather Review*, v.112, p.1960-1975.

- Bardsley, W.E., and Briggs, R.M., (1984) Note on fitting quantitative models of magmatic processes to trace element data.
Computers and Geosciences, v.10, p.445-448.
- Bardsley, W.E., (1984) Note on confidence bounds for fission track dating with low track counts.
Nuclear Tracks, v.9, p.69-70.
- Bardsley, W.E., (1984) Conservative estimation of groundwater volumes: application of linear programming to tritium data.
Journal of Hydrology, v.67, p.183-193.
- Bardsley, W.E., (1983) Tests and models for fission track data.
Journal of Mathematical Geology, v.15, p.645-647.
- Bardsley, W.E., (1983) Confidence limits for fission-track dating.
Journal of Mathematical Geology, v.15, p.649-658.
- Bardsley, W.E., and Manly, B.F.J., (1983) Regression-based estimation of long-term mean and variance of wind speed at potential aerogenerator sites.
Journal of Climate and Applied Meteorology, v.22, p.323-327.
- Bardsley, W.E., (1983) An alternative distribution for describing the instantaneous unit hydrograph.
Journal of Hydrology, v.62, p.375-378.
- Bardsley, W.E., (1983) Bounds for survival probability with low-magnitude design floods.
Journal of Hydrology, v.62, p.371-373.
- Bardsley, W.E., (1983) Random error in point-counting.
Journal of Mathematical Geology, v.15, p.469-475.
- Bardsley, W.E., (1982) Random errors in fission-track dating.
Journal of Mathematical Geology, v.14, p.545.
- Bardsley, W.E., (1981) Wind energy flux at New Zealand radar/wind stations.
New Zealand Journal of Science, v.24, p.89-94.
- Bardsley, W.E., (1981) Note on two limit distributions of bedload movement.
Journal of Hydrology, v.52, p.165-169.
- Bardsley, W.E., (1981) Note on the time to flood exceedance.
Journal of Hydrology, v.49, p.395-399.
- Bardsley, W.E., (1980) Note on the use of the inverse Gaussian distribution for wind energy applications.
Journal of Applied Meteorology, v.19, p.1126-1130.
- Bardsley, W.E., (1980) Note on random raindrops and sampling error.
Nordic Hydrology, v.11, p.1-6.

- Bardsley, W.E., (1980) On the asymptotic sampling distribution of sediment weight fractions.
Journal of Mathematical Geology, v.12, p.157-163.
- Bardsley, W.E., (1980) Estimating an upper bound to particle size in sediment populations.
Journal of Mathematical Geology, v.12, p.127-138.
- Bardsley, W.E., (1980) An algorithm for calculating an upper bound to χ^2 for testing binomial homogeneity with some observations uncategorized.
Computers and Geosciences, v.6, p.315-319.
- Bardsley, W.E., (1979) Note on the application of classical extreme value theory to flood data.
Journal of Hydrology, v.42, p.187-193.
- Bardsley, W.E., and Manly, B.F.J., (1979) Note on the distribution of flood maxima for random sample size.
Journal of Hydrology, v.42, p.195-198.
- Bardsley, W.E., (1978) An extreme value model for expressing grain size and bed thickness as functions of the spatial variations of grain frequency.
Journal of Mathematical Geology, v.10, p.245-257.
- Bardsley, W.E., (1978) Note on the distribution of "random" tors on a line.
Journal of Mathematical Geology, v.10, p.375-378.
- Bardsley, W.E., (1978) A simple U-shaped limiting probability density function for channel location between mid-bay spits.
Journal of Mathematical Geology, v.10, p.91-95.
- Bardsley, W.E., (1977) Dispersal patterns of some heavy minerals along the Otago-Southland coast.
New Zealand Geographer, v.33, p.76-79.
- Bardsley, W.E., (1977) A test for distinguishing between extreme value distributions.
Journal of Hydrology, v.34, p.377-381.
- Bardsley, W.E., (1975) Modified technique for staining feldspar in grain mounts.
New Zealand Journal of Geology and Geophysics.

Conference Presentations

- Bardsley, W.E. (2006) *The Onslow seasonal pumped storage scheme revisited: an alternative approach to water level management of the southern hydro lakes?*
New Zealand Hydrological Society Conference 2006 meeting, Christchurch, Nov. 20-23.
Programme and abstracts, p.148-149.

- Purdie, J., Bardsley, W.E. (2006) *Seasonal inflow and rainfall prediction models for the Waitaki hydro catchment – calibration, validation, and operational application*. New Zealand Hydrological Society Conference 2006 meeting, Christchurch, Nov. 20-23. Programme and abstracts, p.146.
- Bardsley, C., Bardsley, W.E. (2006) *Association of New Zealand lightning with discharge variations*. Poster presentation at the New Zealand Hydrological Society Conference 2006 meeting, Christchurch, Nov. 20-23. Programme and abstracts, p.220-221.
- Jelley, N., Bardsley, W.E. (2006) *A regression approach to forecasting well water levels in Whangamata, Coromandel*. Poster presentation at the New Zealand Hydrological Society Conference 2006 meeting, Christchurch, Nov. 20-23. Programme and abstracts, p.210-211.
- Bardsley, W.E. (2006). *Simulating a possible seasonal pumped storage scheme in New Zealand for enhanced storage capacity and environmental lake management*. Poster presentation. Western Pacific Meeting of the American Geophysical Union, Beijing, July 24-27. Eos Trans. AGU, 87(36), West. Pac. Geophys. Meet. Suppl., Abstract H41E-0098.
- Bardsley, W.E., Liu, S. (2006). *Toward constructing simplified rainfall-runoff models using constrained linear functions*. Paper presented by W.E. Bardsley at the Western Pacific Meeting of the American Geophysical Union, Beijing, July 24-27. Eos Trans. AGU, 87(36), West. Pac. Geophys. Meet. Suppl., Abstract H22A-04.
- Bardsley, W.E. (2006). *Simulating correlated annual flow duration curves or cumulative inflows for modeling water management scenarios in multi-tributary river basins*. Western Pacific Meeting of the American Geophysical Union, Beijing, July 24-27. Eos Trans. AGU, 87(36), West. Pac. Geophys. Meet. Suppl., Abstract H43B-05.
- Bardsley, W.E. (2006). *A pumped storage scheme for maintaining hydro electricity against climatic variations?* 8th Annual New Zealand Energy Summit, Wellington, July 17-18. Conference summary, p.1-10 (invited paper).
- Bardsley, W.E., Leyland, B., and Bear, S. (2006). *A large pumped storage scheme for seasonal reliability of national power supply?* Paper presented by W.E. Bardsley to the 2006 Electricity Engineers Association Conference, Auckland, June 16-17.
- Bardsley, W.E. (2006). *China and New Zealand: large seasonal pumped storage schemes for an electricity future using wind power and small hydro systems?* Invited presentation to the first regional workshop of the InterAcademy Panel (IAP) on water security: International East Asia Regional Workshop of IAP on Water Security Related to Climate Change and Human Activity, Beijing, June 12-15, Conference summary p.1-12.
- Sophocleous, M, Bardsley, W.E. and Healy, J. (2005). *A rainfall loading response recorded at 300 meters depth: Implications for geological weighing lysimeters*. Poster presented by M. Sophocleous, at the 2005 Geological Society of America Annual Meeting, Salt Lake City, Utah, October 16-19. Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 359.

Purdie, J, and Bardsley, W.E. (2004) *Predicting Seasonal Inflows to the Waitaki Hydro Electricity Catchment.*

Paper presented by J Purdie at the 2004 New Zealand Hydrological Society Conference, Queenstown, Nov. 15-20. Programme and abstracts, p.140.

Bear, S, and Bardsley, W.E. (2004) *A large New Zealand Pumped Storage Scheme for Reliable Power through Dry Years?*

Paper presented by S Bear at the 2004 New Zealand Hydrological Society Conference, Queenstown, Nov. 15-20. Programme and abstracts, p.32-33.

Bardsley, W.E. (2004). *A Smoothed Bootstrap Approach to Monte Carlo Generation of N Spatially Correlated Graphs of Annual Flow Duration or Cumulative Discharge.* Proceedings of the 2nd APHW Conference (Asia Pacific Association of Hydrology and Water Resources) V.2, p.1002-1010.

Bardsley, W.E. (2004). *Call for an APHW Funding Proposal for Emplacement and Monitoring of a set of Geological Weighing Lysimeters.* Proceedings of the 2nd APHW Conference (Asia Pacific Association of Hydrology and Water Resources) V.2, p.196-203.

Bardsley, W.E. (2003). *Application of stochastic methods to creating models of contaminant transport and dispersion in rivers and groundwater.*

Proceedings of the International Congress on Modelling and Simulation, Townsville, Australia (MODSIM 2003), p.326-331. 14-17 July 2003

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Bardsley, W.E. and Liu, S. (2003). *An approach to creating lumped-parameter rainfall-runoff models for drainage basins experiencing environmental change.*

Proceedings of Symposium HSO2b (Water Resources Systems – Hydrological Risk, Management and Development) held during IUGG2003 at Sapporo, Japan, July, 2003. IAHS Publ. no.281, (2003), p.67-74.

Purdie J M and Bardsley, W.E. (2002). *Toward predicting seasonal inflows in the Waitaki hydro power catchment, New Zealand.*

Eos Transactions of the American Geophysical Union, 83(22), Western Pacific Geophysics Meeting Supplement. H31B-03, 2002.

Bardsley, W.E. and Liu, S. (2002). *Use of finite-mixture distributions for creating rainfall-runoff models for application to a range of catchment scales and locations.*

Eos Transactions of the American Geophysical Union, 83(22), Western Pacific Geophysics Meeting Supplement. H32A-01, 2002.

Bardsley, W.E. and Campbell, D.I. (2000). *Natural geological weighing lysimeters: potential for using natural deep groundwater pressure fluctuations for spot checks of near-surface water mass change for GRACE calibration.*
Eos Transactions of the American Geophysical Union, 81(48), Fall meeting suppl. H72B-31, 2000.

Poster paper presented by W.E. Bardsley at the 2000 Fall Meeting of the American Geophysical Union, December 15-19, San Francisco, California.

Brown, E., and Bardsley, W.E. (2000). *Evaluating the potential of constructed groundwater systems in support of Auckland's water supply operations.*
Paper presented by E. Brown at *Fresh Perspectives: a joint conference of the New Zealand Hydrological Society, Meteorological Society of New Zealand, and New Zealand Limnological Society*, 21-24 November, 2000, University of Canterbury, Christchurch. Conference abstracts, p. 344-345.

Breuer, B.A., Koch, M. and Bardsley, W.E. (1999). *Modeling artesian flow for additional hydraulic income generation in a small hydropower catchment in New Zealand.*
Paper presented by M. Koch at the fall meeting of the American Geophysical Union, San Francisco, Dec. 13-17, 1999. (Supplement to EOS. Transactions of the American Geophysical Union, v. 80 (46), p. I 434).

Brown, E. and Bardsley, W.E., (1999) *Evaluating the potential of constructed groundwater systems in support of the Auckland water supply system.* Poster paper presentation by E. Brown at the 25th. Hydrology and Water Resources Symposium (A congress of the Institute of Engineers, Australia), Brisbane 6-8 July, 1999, (Proceedings, p.1105-1108).

Brown, E. and Bardsley, W.E., (1999) *Development of the stillstand rain gauge for recording rainfall stratigraphy.* Paper presented by E. Brown at the 25th. Hydrology and Water Resources Symposium (A congress of the Institute of Engineers, Australia), Brisbane 6-8 July, 1999, (Proceedings, p.269-275).

Bardsley, W.E., and Campbell, D.I., (1999) *Confined aquifers can serve as giant weighing lysimeters.* Presented at the 2nd international conference on Water Resources & Environment Research. Brisbane 6-8 July, 1999. (Proceedings, p.884-889).

Peacock, A.J., Tomer, M.D., and Bardsley, W.E., (1998) *Water, nitrate-N, and chloride budgets of a wetland receiving land-treated wastewater.* Presented by A. J. Peacock at the New Zealand Water and Waste Water Conference, Wellington, September, 1998.

Bardsley, W.E., Breuer, B.A, Choudhry, S., Brown, E.J., Brown, N.Z., (1998) *Hydropower hydrology at the University of Waikato.* Presented at the Meteorological Society of New Zealand and New Zealand Hydrological Society Joint Conference, Dunedin, November, 1998.

Choudhry, S., Morad, M., Bardsley, W. E. (1997) *A new method of building DEM for hydrologic modelling,* Proceedings of the Modsim '97 International Congress on Modelling and Simulation, 8-11 December, Tasmania, Australia, pp. 444-449. Ed. A.D. McDonald and M. McAleer. (Conference organised jointly by the Modelling and Simulation Society of Australia, and the International Association for Mathematics and Computation in Simulation). Paper presented by P.Pathak.

Breuer, B.A., and Bardsley, W.E., (1997). *Groundwater pumping to augment winter baseflows in a small hydropower catchment?* Poster paper presented by B. Breuer to the 1997 Geological Society of New Zealand Conference, Wellington, November 1997.

Choudhry, S., Bardsley, W.E., and Morad, M. (1997). *DEM accuracy and its importance in hydrologic modelling*. Conference presentation by S. Choudhry to the American Water Resources Association 1997 Symposium: Water Resources Education, Training and practice: Opportunities for the next century, Keystone, Denver, Colorado, June 29 - July 3. Proceedings p.764-769 (Ed. J.J. Warwick).

Choudhry, S., Bardsley, W.E., and Morad, M. (1997). *DEM errors and their effects on surface runoff modeling*. Conference presentation by S. Choudhry to the CMWR 4th International Conference on Computer Methods & Water Resources, Byblos, Lebanon, June 16-18.

Bardsley, W.E., and Campbell, D.I., (1996). *Overview of results from a replicated aquifer lysimeter experiment in a pasture environment*. Presented to the American Geophysical Union Western Pacific Geophysics Meeting, Brisbane, July 23-27.

Bardsley, W.E., and Campbell, D.I., (1995). *Some results from a replicated aquifer lysimeter experiment*. Presented at the 1995 New Zealand Meteorological and Hydrological Symposium, University of Canterbury, Christchurch, Nov. 12-16.

Bardsley, W.E., and Campbell, D.I.C. (1995). *Aquifer lysimeters for direct measurement of areal evapotranspiration in arid environments*. Presented at the 1995 International Union of Geodesy and Geophysics XXI General Assembly, Boulder, Colorado, USA. (Symposium Abstracts, p.A219).

Bardsley, W.E., (1994). *Three in one: aquifer lysimeters; power from groundwater; high hydros*. Presented at the 1994 New Zealand Hydrological Society Symposium, Hamilton;NZ.(New Zealand Hydrological Society 1994 Symposium Abstracts, p.1-6).
Campbell, D.I., and Bardsley, W.E., (1993). *Measuring near-surface moisture budgets with confined aquifers*. Conference presentation by D.I. Campbell at the Fourth Scientific Assembly of the International Association for Hydrological Sciences, Yokohama, Japan, July 1993.

Bardsley, W.E., (1992). *Some thoughts on criticism, innovation and publicity in hydrology*. Presented at the 1992 New Zealand Hydrological Society Symposium, Auckland, NZ.

Campbell, D.I. and Bardsley, W.E., (1992). *The aquifer lysimeter: using confined aquifers to make direct measurements of areal rainfall and evaporation?*
Presentation by D.I. Campbell at the 1992 New Zealand Hydrological Society Symposium, Auckland, NZ.

Bardsley, W.E., Campbell, D.I., and Hadfield, J., (1992). *Aquifer lysimeters?*
Presented at the 7th Australasian Forum on Climatology, Cairns, Australia.

Bardsley, W.E., Mitchell, W.M., and Lennon, G.W., (1989). *A brief overview of some techniques of design analysis for future river floods and sea level extremes*. (New Zealand Hydrological Society and The Institution of Engineers, Australia). The Institute of Engineers, Australia, National Conference Publication No. 89/19, p.223-226.

Presented at the 1989 Hydrology and Water Resources Symposium, Christchurch, NZ.

Bell, A.R., Hodder, A.P.W., and Bardsley, W.E., (1989). *Effluent-ignimbrite interactions at Kinleith, New Zealand*. (Conference presentation by A.P.W. Hodder). Proceedings of the 6th International Symposium on Water-Rock Interaction, Malvern, Shropshire (UK), 3-8 August 1989, p.65-68. D.L. Miles (Ed), Balkema, Rotterdam, (1989).

Bardsley, W.E., (1987). *Toward a general procedure for the analysis of extreme random events in hydrology*. Presented at the 1987 IUGG international conference, Vancouver, Canada.

Bardsley, W.E., (1987). *Nonparametric design flood estimation*. Presented at the 1987 New Zealand Hydrological Society Symposium, Gisborne.

Bardsley, W.E., (1986). *Transformations for flood analysis*. Presented at the 1986 New Zealand Hydrological Society Symposium, New Plymouth.

Bardsley, W.E., (1978) *A test for extreme value distributions*. Presented at the 1978 New Zealand Hydrological Society Symposium, Christchurch.