

# ROBERT J. HICKEY



ONLINEGEOGRAPHER@GMAIL.COM WWW.ONLINEGEOGRAPHER.COM 509.899.3001

## Education

- 1994 PhD, Department of Geography, University of Idaho
- 1990 MS, Department of Geology, Washington State University
- 1987 BS (Honors), Department of Geology, Edinboro University of Pennsylvania

## Professional History

- 2000-present *Professor*, Department of Geography. Central Washington University. Promotion to Professor in 2009, tenure in 2004, and promotion to Associate Professor in 2002.
- 1990-present *Consultant*: Kittitas Valley Event Center (2013), Audubon Society (2008), Washington Education Association (2006/09), WA Parks and Recreation (2005), Interagency Committee for Outdoor Recreation (2005), Puget Sound Energy (2004/05), the Valley Institute for Research and Education, Yakima, WA (2002), erosion modeling for Oregon Dept. of Agriculture (2001/02), coastal database development for LandVision, Perth, Australia (1998/99), contractor to Geological and Exploration Associates, NV (1996), exploration geologist for Touchstone Resources, NV (1991), and thin section analysis for Battle Mountain Gold, WA (1990). Also, minor ongoing consulting with government agencies, mining/exploration companies, and environmental firms.
- 2001-2013 Founder and *Director of the GIS Certificate Program*. Department of Geography,  
2015-2018. Central Washington University.
- 2007-2013 *President, United Faculty of Central*. Oversaw a ~200 member voluntary organization representing ~630 faculty on all issues related to wages, salaries, and terms and conditions of employment.
- Fall 2005 *Visiting Professor*, Institute of Environmental Sciences and the Department of  
March 2007 Cartography and Geoinformatics. University of Pecs, Hungary.  
Fall 2011 (faculty exchange)
- 1997-2000 *Senior Lecturer in GIS*, School of Spatial Sciences, Curtin University of Technology. Perth, Australia. Tenure and promotion from Lecturer in January, 1999. (Senior Lecturer is roughly equivalent to Associate Professor).
- 1994-1996 *Assistant Professor*, Department of Geology (Geography Program). Manager, Geospatial Analysis Lab. State University of West Georgia.

- 1991-1994 *Instructor, Spatial Graphics (1992). Teaching Assistant, Computer Mapping and Physical Geography Labs. Head Teaching Assistant (1992-94). University of Idaho*
- 1988-1990 *Teaching Assistant, Physical Geology Labs. Washington State University.*

### **Administrative Experience**

- *President, United Faculty of Central (June 2007 - June 2013).* My formal duties were to represent the faculty in all matters pertaining to wages, salaries, and terms and conditions of employment. However, these duties often overlapped with Faculty Senate, Chair, and administrative responsibilities, and, as a result, I frequently met with faculty and the administration on such diverse issues as programs, chair elections, and general faculty or university interests. As a case in point, I was involved in the reorganization of our library following the removal of the dean, dealing with personnel issues, accreditation, and program review. I also testified in front of the State Legislature and became very familiar with the university budget. In addition to representing ~630 faculty, I oversaw the association officers, executive board (10 faculty), and 30 stewards. Finally, I developed a reputation for getting things done, both for the faculty and for the university. To this end, I cultivated strong working relationships with many administrators, faculty, and campus organizations.
- *Strategic Planning:* I was a member of the Central Washington University Strategic Planning Task Force (2010/11). This task force was charged with reviewing and updating the University's Mission, Vision, and Strategic Plan. During the prior two years, state funding allocations were more than halved, and the president was considering an entirely new approach to university operations. As such, this process was more about reinventing the university than simply updating existing plans.
- *Budget Experience at Central Washington University:* In addition to directly managing the United Faculty budget, my role required monitoring the campus budget, state allocations, and legislative bills. Prior to this, I served on the University Budget Committee, a Faculty Senate committee which was the intermediary between the Senate and Provost. This committee met with the Provost regularly to discuss both the operating and capital budgets. Further, I was on the building committee for Dean Hall, a new geography/anthropology building, and became knowledgeable regarding not only the cost of completely refurbishing an academic building, but also the state's capital budget allocation process.
- *Program Development:* In addition to being active in general program development in every department in which I have worked, I have been particularly instrumental, at every university, in developing and growing geographic information system (GIS) curriculae. The highlights at CWU are a BS in Geography with a GIScience track and our GIS Certificate program – which I developed, convinced the department of its merit, shepherded through the approval process, marketed, and taught most of the courses. Each year we graduate ~10-20 certificate students, all without adding any new courses to our regular geography curriculum. I also work with multidisciplinary programs, including Environmental Studies, STEP, and the graduate program in Cultural and Environmental Resource Management at CWU. I also helped develop a double major in GIS and Geology at Curtin University.



- *Personnel:* I've been involved in personnel decisions and discipline (up to and including firing) at a number of levels. I served on (and chaired) search committees, departmental personnel committees, and our college personnel committee. Finally, as UFC president, I've been involved in disputed tenure, promotion, and discipline cases from across campus. This experience made me familiar with all the processes, procedures, and laws surrounding faculty promotion, tenure, hiring, and discipline at multiple levels.
- *Information Technology (IT) Oversight:* At Curtin University, I was elected Chairman of the Engineering (and Geology) Computing Facilities Committee. In this role, I oversaw a \$300,000 budget and four employees. I also acted as a liaison between the IT group, the faculty, four engineering schools, and the dean of engineering. The job included being involved in Divisional and University-level IT planning and negotiating budgets for the IT group. I continued this work at Central Washington University, chairing the University IT Advisory Committee (UITAC), which reported directly to the Provost. UITAC represents academic technology needs to the major IT service providers at the University, developing priorities, and working to secure needed funding for major IT programs.
- *Recruitment (2012-2016):* At CWU, I worked to assist the College of Sciences and campus recruitment office by providing maps showing the distribution (within WA) of current and recent past undergraduate students by age, gender, major, and type (transfer or not).
- *Alumni Relations (2014-2017):* At CWU, I worked with our alumni office to make maps used to target alumni activities. I was also a member of the University of Idaho Alumni Board of Directors and have become familiar with their activities.
- *One Book, One Campus Program:* After hearing about campus-wide reading programs at another universities, I recommended we start one at CWU. The easy part was developing the details of the program – the real work was selling it to the entire campus and convincing the university to provide funding. To this end, I met with (and convinced) the Senate curriculum committee, the Senate executive, the Provost, the President, and, ultimately, the entire Faculty Senate. The Provost also provided funding for a copy of the book for every faculty member and every incoming freshman student. I served as chair of the implementation committee for its first two years until standing down while on sabbatical.
- *Director, GIS Certificate program (2001-2013, 2015-2018).*
- *Interdisciplinary Experience:* In addition to working with a number of faculty and administrators across campus on research and teaching projects, I was a member of five faculty contract bargaining teams (chairing one). This process was a significant education in two ways. First was the understanding that the goal of both sides is a workable contract. Reaching this goal requires not only teamwork, but compromise and a keen understanding of the implications of decisions. The second factor was the understanding we developed regarding the details of faculty working conditions, standards, and policies across the sciences, social sciences, business, humanities, education, technical programs, and library.
- *Board Memberships:* Central Washington University Friends of the Library (2017-pres.). University of Idaho Alumni Board of Directors (2014-2016)

## Honors and Awards

- 2017 The Tom-Ogg NRHH (National Residence Hall Honorary) Chapter *Honoring Our Professors' Excellence Award (H.O.P.E)* award which recognizes professors who have a strong positive impact on the students and go above and beyond the usual classroom duties. The awardees are nominated by students and then selected by a committee of NRHH members.
- 2013 *Most Inspirational Faculty Award (2012/2013)*. Given to one faculty member per year for individuals in honor of their outstanding leadership, dedication, and service to the CWU community. I was nominated by a faculty member and selected by a committee of staff and students.
- 2013 United Faculty of Washington State *You Wear Spurs* award. This award is given, on average, once every two years to a faculty member from a WA unionized campus for exceptional service to their union and the faculty they represent.
- 2004 & 2005 Awarded a Certificate of Nomination for excellence as a student mentor. Center for Excellence in Leadership, CWU.
- 2003 Recognition by a graduating Disabled Support Services student at the end of year DSS dinner.
- 2001 Awarded a Kittitas County Conservation District 2001 Volunteer Appreciation Award for work related to GIS Day.
- 2001 Awarded a signed/numbered limited-edition *Washington State at Centenary* map (1989) by the Geography faculty for providing extra assistance to students and faculty with computing and printing issues.
- 2001 Awarded (as part of the department) a Certificate of Appreciation from the Kittitas County Search and Rescue Group for a map of *1999 – 2001 Rescue Sites in Kittitas County*. Map made as part of a Cartography final project by Karen Hodges.
- 2000 Two MSIA Excellence in Mapping Sciences Awards: MSIA Conference, Dec. 3-6, Sydney. First authors are graduate students.
- Silver Award: Geospatial Analysis and Modeling. J. Lawley, R. Hickey, G. Wright, and A. Wayne, *Visualisation and Animation of Spatio-Temporal Data to aid Multiple Use Forest Management*.
  - High Commendation: Geospatial Information Systems - Natural Resources. D. Hollingsworth, R. Hickey, and P. Cawood, *Landsat Thematic Mapper as a Regional Mapping Tool in the Late Archaean to Palaeoproterozoic Hamersley Province, Western Australia*.
- 1997, 98, 99 Awarded the *Dean's Medallion for Excellence in Teaching* in 1999 and 1998; finalist in 1997. Faculty of Engineering, Curtin University of Technology.



- 1997 "Best Presented Paper Award." Australasian Urban and Regional Information Systems Association (AURISA) '97 conference. *Methods for Slope Angle and Slope Length Calculations Within a GIS*.
- 1996 Teacher of Excellence. Awarded by student group, University of West Georgia.
- 1995 Finalist, Warren Nystrom Award for recent Ph.D. graduates in geography.
- 1994 Graduate Student Association Teaching Excellence Award, University of Idaho.
- 1991-1993 Idaho Mining and Minerals Resource Research Institute Fellowship (1991); Featherstone Scholarships (1992/93). College of Mines, Department of Geography, University of Idaho.
- 1990 Joseph W. Mills Award for excellence in economic geology. Department of Geology, Washington State University.
- 1984-1987 Departmental Senior of the Year (Geology Dept.), Academic All-American, National Dean's List, member University Honors Program, Honors Program Scholarship recipient, member Alpha Chi Honors Society, Dean's List, and Cum Laude graduate. Edinboro University of Pennsylvania.

### **Teaching Experience**

I've taught over twenty different classes on three continents in science, social science, and engineering departments at undergraduate through graduate levels. The classes ranged in size from relatively large (130) to quite small (4). Some were team-taught, many were interdisciplinary, a few had a serious field component, others actively involved members of government agencies or industry, and one included international travel.

#### **Central Washington University (\*regularly/recently taught)**

- UNIV 101 General Education Colloquium
- STEP 102 Science Seminar II: Interdisciplinary Research Theme\*
- GEOG 101 World Regional Geography
- GEOG 107 Our Dynamic Earth (introductory Physical Geography)\*
- ENST 201 Earth as an Ecosystem (introductory Environmental Science)
- GEOG 203 Introduction to Maps and Cartography
- GEOG 301: Introduction to GIS and Maps\* (replaced GEOG 203 in 2016)
- GEOG 303 GIS and Data Management
- GEOG 413 Computer Cartography
- GEOG 417 Advanced GIS\*
- GEOG 430 Remote Sensing\*
- GEOG 444 Mineral Resources
- GEOG 487 Introduction to Arc/Info GIS
- GEOG 493 Geography Field Experience – Field trip to Western Australia
- GEOG 489 Geography Capstone\*
- GEOG 494 Special topics in GIS/RS: LIDAR
- GEOG 499 Introduction to Google Earth (1 credit seminar)

GEOG 499 Geospatial Intelligence (1 credit seminar)  
REM 505 Introduction to Graduate Research  
REM 515 GIS in Resource Management

University of Pecs (fall semester 2005, March, 2007, and/or fall semester 2011)

World Regional Geography  
Introductory Physical Geography  
Introductory Earth Science  
Introductory and Intermediate GIS  
National Parks of the Western United States (team taught)  
Environmental Modeling in GIS  
Physical Geography and Remote Sensing integration  
Data and Google Earth

Curtin University of Technology

GIS 151 and 201/501 (two different GIS classes)  
Digital Computing 112: (GIS for geologists).  
Computer Technology 183/581 (Intro. to programming using Visual Basic)  
Land Science 205  
Land Information Systems 382/583  
Geological Remote Sensing 501  
Modelling Techniques for Spatial Data 681

State University of West Georgia

GEO 205 Physical Geography  
GEO 350 Computer Cartography  
GEO 356 Remote Sensing of the Environment  
GEO 405/605 EIS and Environmental Planning  
GEO 455/655 Geographical Information Systems (GIS)  
GEO 490/690 Advanced Topics in GIS  
GLY 407 Western Geology Field Trip

University of Idaho

GEOG 180/181/182 Spatial Graphics  
GEOG 101 Physical Geography Labs

Washington State University

GEO 101 Physical Geology Labs

University Service

2000-present Central Washington University: advisor – Brother 2 Brother (2017-pres.), member - Faculty Senate (2004-2006, 2014-2018), Mapping for the Alumni (2012-2017) and Admissions (2008-2015) offices, faculty member – Automated Degree Planning System Committee (2016-pres.), member - Senate Dispute & Allegations Committee (2014-pres.), member - College of the Sciences Personnel Committee (2009-2013, 2014-2015), University Strategic Planning Task Force (2010-2011), Chair - One Book, One Campus Committee (2004-2006), Chair - Information Technology Advisory Committee (2001-2006), member - Budget Committee (2000-2006),



member - Dean Hall Building Committee (2003-2005), member - COTS summer faculty research awards committee (2003), member - search committee, Director of Information Technology Services (2003), member - Media Equipment and Technology Committee (2001-2002).

- 2000-present Various department service responsibilities as member or chair: personnel committee, search committees, award committee, library liaison, and curriculum committee. Involved with program review, curriculum, and making advising materials (posters). Faculty mentor.
- 2005-2015 United Faculty of Central Washington University. Various roles as officer and board member: Executive Board (2006-2015), President (2007-2013), Bargaining teams (2005, 2007, 2009 [chair], 2011, 2013), Co-Chair of Labor Management Council (2007-2013), Chief Steward (2006-2007), and Department Steward (2005-2013).
- 2003-2005 Editor, volumes 1-3 of 47° North, the annual newsletter for the Department of Geography and Land Studies. Central Washington University.
- 1998-2000 Chairman, Engineering and Geology Computing Facilities Committee. Oversaw a \$300,000 budget and four employees. Curtin University.
- 1999-2000 Member, Division of Engineering and Science Teaching and Learning Committee. Curtin University.
- 1998-2000 Member, US Focus Group, Internationalization Committee. Curtin University
- 1997-2000 Supervisor, GIS/LIS option within Surveying degree and Coordinator of School computing, web pages, and class scheduling. Curtin University.
- 1995-1996 School of Arts and Sciences Computers and Networks Committee. University of West Georgia.
- 1994-1996 Campus Recycling Coalition. University of West Georgia.
- 1993-1994 University Curriculum Committee. University of Idaho.
- 1992-1993 Borah Symposium Committee. University of Idaho.

### **Membership in Professional Societies**

- American Association for the Advancement of Science (AAAS).
- Phi Kappa Phi (life member).
- Sigma Gamma Epsilon (Earth Science Honorary, life member).
- Past member of the Association of American Geographers (AAG), Geological Society of America (GSA), Mapping Sciences Institute Australia (MSIA), the Australian Surveying and Mapping Lecturers Association (ASMLA), Council on Undergraduate Research (CUR), the Association of Washington Geographers, the Geological Society of Australia, the Australian Urban and Regional Information Systems Association

(AURISA), the Society for Mining, Metallurgy and Exploration, the Geological Remote Sensing Group, and the American Society of Photogrammetry and Remote Sensing.

### **Professional/Public Service**

- Member of the Kittitas County Planning Commission, Ellensburg, WA. December 2012-present. Vice-chair, 2016. Chair, 2017-pres.
- Member, Board of Directors: Friends of the CWU Brooks Library. 2017-pres.
- Editor (GIS/Remote sensing specialty) for the Journal of Spatial Sciences. <https://www.tandfonline.com/loi/tjss20>. 2019-pres.
- Service to the American Association for the Advancement of Science (AAAS):
  - Member at large, Pacific Division Council (2014-2020): two elected terms.
  - Student poster judge: 2018, 2017, 2016, 2015, 2014, & 2013 Annual and 2018, 2017, 2015, & 2013 Pacific Division meetings).
  - Section E (Geology/Geography) - annual conference symposium reviewer (2018, 2017, 2016, 2015, 2014, & 2013).
  - Symposium proposed, accepted and moderated for 2018 meeting: *The View from Above: What We See with Drones*.
  - Symposium proposed (with Eric Graham, Biology) for the 2019 Pacific Division meeting: *Puttin' the public to work – Community Science around the world!*
  - On call scientist, have worked 1x with IIE's Scholar Rescue Fund (IIE-SRF).
- Paper/chapter/text/thesis reviewer for the *Journal of Environmental Management*, *Journal of Hydroinformatics*, *Journal of Forestry*, *International Journal of Applied Geospatial Research*, *Science of the Total Environment*, *Land Degradation and Development*, *Computers and Geosciences*, *International Journal of Geographical Information Science*, *Transactions in GIS*, *Journal of Spatial Science*, *Cartography*, *Soil and Water Conservation*, *Africa Geoscience Review*, *The Australian Surveyor*, *Hydrology and Earth System Sciences*, *Environmental Modelling and Software*, *Hydrologic Engineering*, *Hydrology Research*, McGraw Hill Publishing, Guilford Publishing, Arnold Publishers, Pearson Publishing, ESRI Publishing, Curtin University (Australia), the University of Pecs (Hungary), and Royal Melbourne Institute of Technology. (Typically, I do between 2 and 5 reviews/yr.)
- Member, University of Idaho Alumni Association Board of Directors. Vandal Ambassador. 2014-2016.
- Member of the Editorial Board for the journal Geography Online (2000 – 2014).
- Fulbright evaluator, committee for study in Australia. 2008, 2009, and 2010.
- Conference session chair: AURISA '97, MSIA '98, AAG '99, Geol RS '00, AAG '01.
- Committee member, Western Australia Chapter, MSIA (1999-2000).
- National Web Editor, MSIA (1997-2000).
- Secretary/Treasurer, ASMLA (1997-1999).
- Councilor, Western Australia Chapter, AURISA (1997).

### **Funded Grants and Contracts**

2017	Contract with the City of Cle Elum. With Dr. Don Chance. Comprehensive Plan updates. \$19,498
2017	Contract with the City of East Wenatchee. Stormwater drainage mgt. \$6,854.



- 2016 One quarter of research leave plus \$2,400 for *Benthic Fauna Survey of Eighty Mile Beach, Western Australia*. Fall quarter, 2016.
- 2013 Contract with the Friends of the Kittitas County Fairground for cartographic work at the Kittitas County Event Center. \$5184 to hire a student cartographic technician.
- 2011 Science Honors application with Joe Keeney: *Holocene House Hunting: Using Season-Sensitive Multi-Spectral Imagery for Locating Prehistoric Human Dwellings*. \$5000.
- 2000-2017 Central Washington University internal grants (often with other Geography faculty): \$12,000 - GPS/PDAs, \$3,870 for GPS receivers and Brunton compasses, \$1,000 - electronically developed course materials, \$8,700 - lg. format plotter, >\$90,000 - GIS lab upgrades four times, >\$5000 - travel.
- 2007 Funding for travel and housing provided by the University of Pecs, Hungary for 1 month as a visiting associate professor (March, 2007).
- 2005 *Virtual Environments as a Communication Tool*. Graduate student funding for two academic years, Puget Sound Energy. \$19,131.
- 2005 Contract, Washington Parks and Recreation. *State Park Trail Mapping*. \$4562
- 2005 Contract, Interagency Committee on Outdoor Recreation. *State Park Trails Data Compilation*. \$5000.
- 2005 Negotiated a ESRI software package for the University of Pecs, Hungary – resulted in a savings of \$15,800.00 per year (at a cost of \$1000/year).
- 2004 Contract with Puget Sound Energy for GIS-based wind farm mapping and visualization. \$1000.
- 2004 As part of a Mathematics Department team headed by Stuart Boersma: Senior Personnel (Fastlane limited to 4 co-PI's). *Interdisciplinary Lively Application Projects at Central Washington University*. NSF-CCLI-A&I. \$75,000.
- 2002-04 *Project CAT – Cougars and Teaching*. Graduate assistant funding from the WA Dept. of Fish and Wildlife. \$26,008
- 2002 Contract with Valley Institute for Research and Education for GIS mapping. \$550
- 2002 *Quantifying the impacts of high-elevation logging on snowmelt rates and stream hydrographs*. CWU Seed Grants. \$1,020.
- 2001 *Mathematical frameworks supporting conflation problems*. Third author with Kavalarchuk (CWU, Computer Science), Schwing (CWU, Computer Science),

Sumner (CWU Geological Sciences), and Kundu (LSU, Computer Science). NIMA NURI (federal) grant program. \$430,446 over 3 years.

- 2001 Contract, Department of Agriculture, Oregon to calculate RKLS erosion factor. \$5,000
- 2001 *Community Based Monitoring Project of Intertidal Mudflats of Roebuck bay.* With 9 Australian and Dutch co-authors. CoastCare (Australia) Grant Program. \$90,166 (AU)
- 2001 *Completion of Mapping the Benthos of Roebuck Bay.* With G. Pearson, T. Piersma M. Lavaleije P. DeGoeij , and D. Rogers, and P. Honkoop. CALM (Wetlands Conservation Project ) grant program. \$13,600 (AU)
- 2001 *Geologic mapping using satellite imagery to support archaeologic work in the Saddle Mountains, WA.* With Patrick McCutcheon (Anthropology). CWU Seed Grants and the Bureau of Land Management. \$3,600.
- 2001 Research Leave for *Research into the intertidal sediments, benthic animals, and migratory wading birds of Western Australia.* One quarter of fully funded research leave (spring 2002).
- 1997-2000 Consulting money brought into School of Spatial Sciences accounts. \$12,000 (AU\$).
- 1999 *Developing Flexible Learning Environments: A broad scale strategy to increase both course and unit flexibility within the Division of Engineering and Science.* (With a team from the Division). Curtin University LEAP fund. \$290,000 (AU\$).
- 1999 *Requirements for a baseline survey of marine animals of Eighty Mile Beach.* With Environs Kimberley, CALM, and NIOZ. Gordon Reid Foundation. \$32,970 (AU\$).
- 1998 *GIS-based erosion modelling for improved land use management planning and environmental quality.* With B. Montgomery (Curtin University). ARC Small Grant program. \$8,147 (AU\$).
- 1997 *Pollution pathways in the environment of the migratory bird population of Roebuck Bay, Western Australia.* With Ron Watkins (School of Applied Geology), J. Lane (CALM), and T Piersma (NIOZ). ARC "SPIRT" program. \$63,000 (AU\$).
- 1997 *An Investigation of the Multispectral Response Patterns of Diamond Deposits.* Curtin University New Researcher Grant. \$7,500 (AU\$).
- 1996 *Integrating GIS and Erosion Modelling.* Learning Resources Committee Faculty Research Grant. University of West Georgia. \$1,500.
- 1996 *Erosion Modelling within a GIS.* Student Research Assistant Program, University of West Georgia. \$1,500.



- 1996 *Upgrading Physical Geography Equipment*. Core Curriculum development program, University of West Georgia. \$500.
- 1995 *Evaluation of the WATBAL Sediment Yield Model, Clearwater National Forest, Idaho*. Faculty Research Enhancement Award, \$945; Faculty Research Grant, \$760. University of West Georgia.
- 1995 Software donations to Geospatial Analysis Lab, Univ. of West Georgia, \$4,771.
- 1993 Idaho Mining and Metallurgy Resource Research Institute, Ph.D. funding, \$4,720.
- 1992-1994 University of Idaho Graduate and Professional Student Association: Travel Grants, \$200, \$125; Departmental Travel Grant, \$250.
- 1989-1990 *The Geology of the Buckhorn Mountain Gold Skarn, Okanogan County, Washington*, MS research funded by Crown Resources, Inc., \$4,000

### **Refereed Publications**

- Hickey, R. in press. *Tidal inundation modeling within GIS to support ecological research, northwestern Australia*. *Journal of Coastal Conservation*.
- Cannon, J., R. Hickey, and W. Gaines, 2018, Using GIS and the Ecosystem Management Decision Support (EMDS) tool for Forest Management on the Okanogan-Wenatchee National Forest, Washington State. *Journal of Forestry*. 116(5): 460-472.
- Keeney, J. and R. Hickey, 2015, Using Satellite Image Analysis for Locating Prehistoric Archaeological Sites in Alaska's Central Brooks Range, *Journal of Archaeological Science: Reports*. 3:80-89.
- Hegedüs, P, S. Czigány, L. Balatony, E. Pirkhoffer, and R. Hickey, 2015, Spatio-temporal behavior of near-surface soil moisture in a forested rapid-response watershed in SW Hungary. *Open Geosciences* (formerly the *Central European Journal of Geosciences*). 7:126-139.  
<http://www.degruyter.com/view/j/geo.2015.7.issue-1/issue-files/geo.2015.7.issue-1.xml>
- Fairbanks, M., S. Hackenberger, and R. Hickey, 2015, Using 3-D GIS in Archaeology Classrooms: An Example from Hells Canyon, Oregon. *North American Archaeologist*. 36(1): 59-88.
- Hickey, R., G. Pearson, and T. Piersma, 2014, Advances in large-scale Mudflat Surveying - the Roebuck Bay and Eighty Mile Beach, Western Australia examples. In C.W. Finkl and C. Makowski (eds.), *Environmental Management and Governance: Advances in Coastal and Marine Resources*, Coastal Research Library 8, Springer International Publishing Switzerland. 440 p.
- Galloway, A , R. Hickey, and G. Koehler, 2011, A Survey of Ungulates by Students along Rural School Bus Routes. *Society and Natural Resources*. 24(2): 201-204.
- Hickey, 2010, Beyond Class Hours: the GIS Lab as a Center of Geographic Education. *International Journal of Applied Geospatial Research*. 1(3): 1-16.

Wade and Hickey, 2008, Mapping Migratory Wading Bird Feeding Habitats using Satellite Imagery and Field Data, Eighty-Mile Beach, Western Australia. *Journal of Coastal Research*. V. 24, no. 3, pp. 759-770.

Hickey, R., E. Burns, J. Bolte, and D. Walker, 2005, Development of a Statewide Erosion Vulnerability Screening Tool for Oregon, *Geography Online* (<http://www.siue.edu/GEOGRAPHY/ONLINE/>). V. 5, no. 2.

Van Remortel, R., R. Maichle, and R. Hickey, 2004, Computing the RUSLE LS Factor through Array- based Slope Length Processing of Digital Elevation Data Using a C++ Executable. *Computers and Geosciences*. V. 30, No. 9-10, pp. 1043-1053.

Lawley, J., R. Hickey, A. Wayne, and G. Wright, 2003, Spatio-Temporal GIS Development To Aid Multiple-Use Forest Management. *GeoCarto International*. V. 18, no. 2, pp. 49-60.

Corner, R., R. Hickey, and S. Cook, 2002, Knowledge Based Soil Attribute Mapping in GIS: the Expert Method. *Transactions in GIS*, v. 6, no. 4, pp. 383-402.

Wilson, J., P. Hick, and R. Hickey, 2002, The use Landsat derived multi-temporal NDVI to assess the impact of the construction of Central Pilbara Railway on vegetation condition, Karijini National Park, Western Australia. *GeoCarto International*. V. 17, no. 1, pp. 13 – 20.

Van Remortel, R., M. Hamilton, and R. Hickey, 2001, Estimating the LS factor for RUSLE through iterative slope length processing of digital elevation data. *Cartography*, V. 30, no. 1, pp. 27 – 35.

Hickey, R., 2000, Slope Angle and Slope Length Solutions for GIS. *Cartography*. V. 29, no. 1, pp. 1 – 8.

Carew, R. and R. Hickey, 2000, Determination of a Generalised Tidal Inundation Model for Roebuck Bay (Western Australia) using an Integrated GIS and Remote Sensing Approach. *Transactions in GIS*. v. 4, no. 2, pp. 99 – 111

Hickey, R., D. Bush, and R. Boulay, 1999, GIS Applications in Coastal Risk Assessment. *Cartography*, v. 28, no. 2, pp. 11 – 19.

Sandison, D., R. Hickey, G. Wright, and G. Metternicht, 1998, Four-dimensional visualisation of smog in Perth. *Cartography*, v. 27, no. 2, pp. 47 – 54.

Dunn, M. and R. Hickey, 1998, The Effect of Slope Algorithms on Slope Estimates within a GIS. *Cartography*. V. 27, no. 1, pp. 9 – 15.

Hickey, R., 1997, Evaluating the WATBAL Sediment Yield Model, Clearwater National Forest, ID. *Northwest Science*, v. 71, no. 3, pp. 233 - 242.

Hickey, R. and P. Jankowski, 1997, GIS and Environmental Decision-making to aid Smelter Reclamation Planning. *Environment and Planning A*, v. 29, pp. 5 - 19.



Hickey, R., A. Smith, and P. Jankowski, 1994, Slope length Calculations from a DEM within ARC/INFO GRID. *Computers, Environment and Urban Systems*, v. 18, no. 5, pp. 365 - 380.

Hickey, R., 1992, The Buckhorn Mountain (Crown Jewel) Gold Skarn Deposit, Okanogan County, Washington. *Economic Geology*, v. 87, pp. 125-141.

Hickey, R., 1991, The Geology of the Buckhorn Mountain Gold Skarn, Okanogan County, Washington. *Journal of the Idaho Academy of Sciences*, vol. 26, no. 1/2, pp. 41-54.

### **Publications (other)**

Schag, G. and R. Hickey, 2017, *Rapidly Calculating Solar-Photovoltaic Potential on Residential & Commercial Rooftops in Ellensburg, Washington*. Report written for the Central Washington University Institute for Integrated Energy Management. 26p.

Piersma, T., G. Pearson, M. Lavaleye, R. Hickey, D. Rogers, S. Holthuijsen, S. Marin-Estrella, P. de Goeij, N. Findlay, and A. Storey, 2016, *Anna Plains and Roebuck Bay Benthic Invertebrate Mapping 2016: AnnRoeBIM16*. Field Report. 96p.

Whitcomb, K., M. Thompson, and R. Hickey. 2013. *A Sense of Place: The Washington State Geospatial Poetry Anthology* (2nd Edition). <http://www.asenseofplacewa.com/> (Google Earth .kml format).

Sainsbury, B. and R. Hickey, 2011, Happy Trails! Trekking from Data to Geo-Enabled Web Site. *GeoWorld*. v. 24, no. 9. pp. 26 - 29.

Whitcomb, K., R. Hickey, and M. Thompson (eds), 2011, *A Sense of Place: The Washington State Geospatial Poetry Anthology*. Available at <http://www.katharinewhitcomb.com/geospatial.html> in KML (Google Earth) format.

Murray, J. and R. Hickey, 2011, *International Student Study: a brief CWU study analysis*. Unpublished report for the CWU AVP for Enrolment Management. 51 p.

Piersma, T., G. Pearson, R. Hickey, S. Dittmann, D. Rogers, E. Folmer, P. Honkoop, J. Drent, P. deGoeij, and L. Marsh, 2006, *Roebuck Bay Invertebrate and Bird Mapping 2006*. Research Report. 67p.

Hickey, R., 2005, An investigation of the multispectral response patterns of West Australian bauxite deposits. (Professional Paper, non-peer reviewed) *Journal of Spatial Science*. V. 50, no. 2, pp. 97-113.

Kasunich, A. (Leica Geosystems) and Hickey, R., 2005, Each Spring, Migratory Birds and GIS Converge on the Northwest Coast of Australia. GIS In Action section, *ArcNews*, v. 27, no. 2, p. 18.

Piersma, T, G.B. Pearson. R. Hickey & M. Lavaleye (eds), 2005. The Long Mud. Benthos and shorebirds of the foreshore of Eighty-mile Beach, Western Australia. Report on the Anna

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Dobra, A. and R. Hickey, 1998, How does the 10 point plan affect land tenure? *The AusIMM Bulletin*. V. 7, pp. 46 – 55.

Hickey, R., 1998, Methods for Slope Angle and Slope Length Calculations within a GIS. *AURISA News*. Vol. 76, p. 16 - 19.

Hickey, R., D. Bush, and R. Boulay, 1997, GIS Supports Coastal Risk Assessment. *GIS World*. V. 10, no. 6, pp. 54 - 58.

Hickey, R., 1995, Physical Geography Exercise Manual. Unpublished. Used in introductory physical geography courses (GEO 205) at the University of West Georgia.

### **Websites Maintained**

1995 - pres. *Personal home page with class & research info* at <http://www.onlinegeographer.com>

1997 – pres. *Bob's Slope page - slope angle and slope length GIS code and discussion* at <http://www.onlinegeographer.com/slope/slope.html>

1997 - 2017. *Intertidal sediments, benthic animals, and migratory wading birds of Northern Western Australia*.

1996 - 2016. *Virtual Cartographer Project*.

2000 - 2006 *GIScience at Central Washington University*

1997 - 2001 *Unofficial IDRISI Resource Centre* at Curtin University (award winning site).

1997 - 2000 Editor, *Mapping Sciences Institute, Australia home page*.

1999 - 2000 *The Australasian Surveying and Mapping Education Directory*.

1997 - 1999. *Press releases, Annals of Improbable Research*. Hosted at Curtin University.

### **Conference Proceedings (as presenter)**

Hickey, R., 2017, *The creation of a marine park - 20 years of research on the intertidal mudflats of NW Australia*. Proceedings of the Annual Meeting of the American Association for the Advancement of Science, Pacific Division. 19-23 June, Big Island, Hawaii.

Hickey, R., 2016, *Australia in Oak, Copper, and Quartz*. Map Gallery submission. ESRI User Conference. 27-31 June. (poster)

Hickey, R., 2015, *Australia in Oak, Copper, and Quartz*. Proceedings of the AAAS Pacific Division Annual Meeting. 14-17 June. San Francisco, CA. (Poster)

Hickey, R., and M. Pease, 2011, *Advising Strategies for Geography: Going Beyond Degree Requirements*. Proceedings of the annual meeting of the Association of American Geographers. (poster)

Hickey, R. and M. Fairbanks, 2009, *Creating a spatio-temporal campus atlas*, Proceedings of the ESRI International User Conference. 13-17 July. San Diego, CA. (poster)

Hickey, R., R. Kupinski, and G. McNeil, 2008, *Building an Active, Vibrant Local?* NEA-AFT Higher Education Joint Conference. 28-30 March, Washington DC. Panel discussion.

- Hickey, R. and S. Boersma, 2007, *Mathematics, Geography, and Data: Introducing Geographic Concepts in Mathematics Classes*. Mathematical Association of America Joint Mathematics Meeting. 5-8 January, New Orleans. (abstract)
- Hickey, R. and S. Wade, 2006, *Food Source Distributions and Their Impacts on Migratory Wading Birds, Eighty Mile Beach, Western Australia*. Celebrate Life on Roebuck Bay Forum, 17 June, 2006. Broome, Western Australia. (abstract)
- Hickey, R., and T. Barnhart, 2005, *Spatial Tools Development at Central Washington University*. Proceedings of the ESRI International User Conference. July 25-29, San Diego, CA. (abstract)
- Hickey, R., 2005, *Maps and Geography: 50 Years of Mapping in the Annals*. Proceedings of the Association of American Geographers Annual Meeting, April 5-9, Denver, CO. (poster)
- Hickey, R. and the 2004 Cartography Class, 2004, *Deconstructing Graphic Discourse: Misdirection through Illustration*. Proceedings of the Association of American Geographers Annual Meeting, 14 – 19 March (poster).
- Hickey, R., 2003, *Geographers Overseas – Internationalizing the Curriculum*, Proceedings of the Association of Washington Geographers Spring Meeting. 12 April, Everett, WA. (abstract).
- Hickey, R., 2003, *Mud, Maps, and Students: Roebuck Bay, Western Australia*. Proceedings of the Association of American Geographer's Annual Meeting, New Orleans, LA. 3-8 March (poster).
- Hickey, R., 2002, *Mudflat Mapping: five years of GIScience in northern Western Australia*, Proceedings of the 2002 Mapping Sciences Institute of Australia Conference, 12 - 15 May, Melbourne, Australia (abstract).
- Wade, S. and R. Hickey, 2002, *Using Spatial Analysis to Aid Managing 80 Mile Beach, Western Australia*. Proceedings of the 2002 Mapping Sciences Institute of Australia Conference, 12 - 15 May, Melbourne, Australia (abstract).
- Hickey, R., 2001, *Mudflat Mapping: five years of GIScience in northern Western Australia*. Proceedings of the 21<sup>st</sup> Annual Meeting of the North American Cartographic Information Society. October 3-6. Portland, OR. Poster.
- Hickey, R., M. Crean, G. Pearson, and T. Pearsma, 2001, *GIS and mudflat mapping, Eighty Mile Beach, Western Australia*. Proceedings of the Association of American Geographer's Annual Meeting. New York, NY. 27 Feb - 3 March (abstract).
- Hickey, R., 2000, *An investigation of the multispectral response patterns of bauxite deposits, Western Australia*. Proceedings of the 14th International Conference of Applied Geologic Remote Sensing. Las Vegas, NV. 6-8 November (paper and poster).



- Hickey, R., 2000, *Developing teaching and research links between universities and industry/government*. Proceedings of the Teaching and Learning Forum 2000 (Flexible Futures for Tertiary Teaching). Perth, Western Australia. February 2 - 4. (paper)
- Hickey, R., 1999, *Developing research links between universities and government/industry*. Proceedings of the GIS for Infrastructure Planning and Management Conference and Exhibition Singapore, August. (paper)
- Hickey, R., R. Carew, and R. Watkins, 1999, *Interdisciplinary environmental modelling, Roebuck Bay, Western Australia*. Proceedings of the Association of American Geographers Annual Meeting. March 23 - 27. (abstract)
- Hickey, R., 1998, *GIS and Image Processing Support Environmental Research at Roebuck Bay, Western Australia*. 4<sup>th</sup> Annual GIS Asia Pacific Conference and Exhibition. Petaling Jaya, Malaysia. 13 - 15 October. (paper)
- Hickey, R., R. Carew, R. Watkins, T. Piersma, and G. Pearson, 1998, *Integrated GIS, Database Management, and Environmental Visualisation at Roebuck Bay, Western Australia*. Proceedings of MISA 1998 National Conference. Fremantle, WA. 24 - 28 May. (paper)
- Carew, R., and R. Hickey, 1998, *Development of a Tidal Inundation Model for Roebuck Bay (Western Australia) using integrated GIS and Remote Sensing Techniques*. Proceedings of the International Conference on Modeling Geographical and Environmental Systems with GIS. Hong Kong, June 23 - 25. (paper)
- Hickey, R., 1997, *Methods for Slope Angle and Slope Length Calculations Within a GIS*. Proceedings of AURISA '97. Christchurch, New Zealand. November 17 - 21. (paper)
- Hickey, R., 1997, *An Investigation of the Multispectral Response Patterns of Bauxite Deposits, Northern Australia*. Proceedings of the X<sup>th</sup> International Congress of the International Society for Mine Surveying. November 2 - 6. (paper)
- Hickey, R., 1997, *Methods for Slope Angle and Slope Length Calculations within a GIS*. Proceedings of the University of New South Wales School of Geomatic Engineering Annual Research Seminar. Sydney, Australia. November 10 - 11. (abstract)
- Hickey, R., 1997, *GIS and Multi-criteria Decision Making Methods Support Mine Reclamation Activities*. Proceedings of the WALIS Forum, '97, Perth, Western Australia. March 26 - 27. (paper)
- Hickey, R., 1996, *Landfill Mining: a Future for the Mining Industry?*. Proceeding of the Northwest Mining Association Annual Meeting, Spokane, WA, December 2 - 6. (abstract)
- Hickey, R., 1996, *Evaluating the WATBAL Sediment Yield Model, Clearwater National Forest, Idaho*. Proceedings of the American Association of Geographers 92<sup>nd</sup> Annual Meeting, Charlotte, NC, April 9 - 13, p. 127. (abstract)

Hickey, R., 1995, *Digital Data for Indian Lands: Where it is and how to find it*: Proceedings of the Northwest Mining Association Annual Meeting, Spokane, WA, December. (abstract)

Hickey, R., 1995, *Planning Smelter Reclamation Proceedings using Integrated GIS and MCDM Methods*: Proceedings of the American Association of Geographers 91<sup>st</sup> Annual Meeting (Nystrom Award competition), Chicago, IL. March. (abstract)

Hickey, R. and P. Jankowski, 1994, *Integrating remote sensing, erosion modeling, and MCDM methods within a GIS for use in planning smelter reclamation proceedings*: Proceedings of the Northwest Mining Association Annual Meeting, Spokane, WA, December. (abstract)

Hickey, R. and P. Jankowski, 1994, *Design and Simulation of Smelter Reclamation Strategies*: Proceedings of the American Association of Geographers 90<sup>th</sup> Annual Meeting, San Francisco, CA, April. (abstract)

Hickey, R., A. Smith, and P. Jankowski, 1994, *Slope Length Calculations from a DEM within ARC/INFO GRID*: Proceedings of GIS '94, Vancouver, BC. January. (abstract)

**Conference Proceedings** (as co-author)

Storey, A., G. Pearson, and R. Hickey, 2018, *A summary of studies of, and insight into, the biologically diverse benthos of Roebuck Bay and Eighty Mile Beach, North West Australia*. Birdlife's Congress. Broome, Western Australia. 8-9 September.

Mentor, one graduate student presentation at the Central Washington University Symposium on University Research and Creative Expression. May 2018

Mentor, three undergraduate student presentations at the Central Washington University Symposium on University Research and Creative Expression. May 2017.

Turner, T. and R. Hickey, 2017, *Evaluating ESRI Story Maps as a Vehicle for Teaching Cartographic Literacy*. Proceedings of the Association of American Geographers Annual Meeting. April 5-7, 2017.

Schag, G. and R. Hickey, 2017, *UAV Photogrammetry: Structure from Motion Data Evaluation for Digital Elevation Model (DEM) Generation*. Student poster competition, AAAS Annual Meeting, 16-20 February. Boston, MA. (Poster). Honorable Mention in the Technology, Engineering and Math category. Noted in Science, 24 March, 2017.

Mentor, one undergraduate student presentation at the Central Washington University Symposium on University Research and Creative Expression. May 2016. Trinity Turner won best presentation in her session.

Free, B., L. Ely, R. Hickey, R. Flake, and S. Baumgartner, 2014, *Quantifying Channel Morphology Changes in Response to the Removal of the Glines Canyon Dam, Elwha River, Washington*, American Geophysical Union Fall Meeting, San Francisco, CA, Dec 15-19. San Francisco. (poster)



Mentor, one graduate student presentation at the Central Washington University Symposium on University Research and Creative Expression. May 2014.

Steele, T., R. Hickey, M. Anderson, B. Lenz, and J. Watson, 2013, *Land management with multiple stakeholders: the Kittitas Valley Event Center example*. Proceedings of the AAG Annual Meeting. March, 2013. (poster)

Mentor, two student poster (one undergraduate, one graduate) presentations at the Central Washington University Symposium on University Research and Creative Expression. May 2013.

Keeney, J. and R. Hickey, 2012, *A Potential Method for Locating Archaeological Sites Using High-Resolution Satellite Imagery*. Poster presented at the 39th Annual Meeting of the Alaska Anthropological Association. Seattle, WA.

Keeney, J. and R. Hickey, 2012, *Using High-Resolution Satellite Imagery and Vegetative Indices to Locate Potential Archaeological Sites; Lake Matcharak, Alaska*. Poster presented at the 77th Annual Meeting of the Society for American Archaeology. Memphis, TN.

Mentor, two graduate and one undergraduate student presentations (2 posters, one talk) at the Central Washington University Symposium on University Research and Creative Expression. May 2012.

Mentor, two graduate student poster presentations at the Central Washington University Symposium on University Research and Creative Expression. May 2011. (Jamie Cannon won best poster in her session)

Cannon, J. and R. Hickey, 2011, *The current state of GIS Jobs*. Proceedings of the annual meeting of the Association of American Geographers. (Poster)

Thompson, M., R. Hickey, and K. Whitcomb, 2011, *Geospatial Poetry – Washington Poetry and Google Earth*. Proceedings of the annual meeting of the Association of American Geographers. (Poster)

Mentor, one graduate student poster presentation at the Central Washington University Symposium on University Research and Creative Expression. May 2009.

Mentor, four student (3 graduate, 1 undergraduate) presentations (3 posters, 1 paper) at the Central Washington University Symposium on University Research and Creative Expression. May 2008.

Reilly, B. and R. Hickey, 2007, *Predictive GIS Landuse Modeling: Sustainable Community Development in Sub Arctic Ports*. Association of American Geographers Annual Meeting. 17-21 April, San Francisco. (poster)

Compton T., van der Meer J., Kraan C., Pearson G.B, Dekinga A., Lavaleye M., Rogers D.I., Hickey R., Piersma T., 2007, *Do tropical bivalves have narrower realised niches than*

*temperate bivalves?*, The third biennial conference of the International Biogeographical Society. (poster)

Mentor, two student (graduate) presentations at the Central Washington University Symposium on University Research and Creative Expression. Marc Fairbanks won best presentation in his session. May 2006.

Fairbanks, M., S. Hackenberger, and R. Hickey, 2006, *The Tryon Creek Site Revisited, Hells Canyon, OR: 3-D Visualization and Spatial Analysis in ARCGIS.9*. Proceedings of the 59<sup>th</sup> Annual Northwest Anthropological Conference, Seattle, Washington. March 29 – April 1. (poster)

Throop, R. and R. Hickey, 2005, *Land Cover Classification of Project C.A.T Study Area*. Association of Washington Geographers Annual Meeting. 21 May. (poster) (Awarded Honorable Mention, Best Undergraduate Poster).

Fairbanks, M. and R. Hickey, 2005, *Geo-visualization as a Communication Tool*. Association of Washington Geographers Annual Meeting. 21 May. (Awarded Honorable Mention, Best Undergraduate Paper Presentation). (abstract)

Mentor, 5 student (3 undergraduate, 2 graduate) presentations (3 posters, 2 papers) at the Central Washington University Symposium on University Research and Creative Expression. 19 May 2005.

Pearson, G., A. Storey, L. Rosenberg, T. Piersma, and R. Hickey, 2003, *Community Based Research on the Intertidal Mudflats of Roebuck Bay and Eighty-Mile Beach*. Proceedings of the Western Australia State Coastal Conference, November 19-21. (abstract)

Burns, E.R., J. Bolte, R. Hickey, P. Measeles, D.L. Walker, R. Jaindl, 2002, *Soil erosion vulnerability screening tool*, Agriculture and Water Quality in the Pacific Northwest 2002 conference (Yakima, WA). November 19-20 (abstract).

Sweetapple, M., P. Collins, and R. Hickey, 2001, *Classification, distribution, and petrogenetic affiliation within the Archaean Pilbara rare metal province, Western Australia*. Proceedings of the 4<sup>th</sup> International Archaean Symposium, 24 – 28 September. Perth, Western Australia. (abstract)

Alden, D., P. McCutcheon, and R. Hickey, 2001, *Landsat Thematic Mapper as a Regional Mapping Tool in the West Saddle Mountains, Grant County, Washington*. Poster presented at the 66th annual meeting of the Society for American Archaeology, April 18-22, New Orleans, Louisiana.

Sweetapple, M., R. Hickey, and P. Collins, 2000, *Controls on regional distribution of rare metal pegmatites in the Archaean Pilbara Craton, Western Australia*. Proceedings of the 15th Australian Geological Convention, Sydney, July 3-7th (abstract)

Hollingsworth, D. and R. Hickey, 1999, *Landsat Thematic Mapper as a regional mapping and exploration tool in the Late Archaean to Paleoproterozoic Hamersley Province, Western*



- Australia*. Proceedings of the Tectonics Special Research Centre Symposium devoted to Two billion years of tectonics and mineralisation. Perth, Western Australia, September 6- 7. (poster)
- Lawley, J., R. Hickey, and G. Wright, 1999, *Visualisation and Animation of Spatio-temporal Data to Aid Multiple-use Forest Management*. Proceedings of the 19<sup>th</sup> International Cartographic Conference (ICA), Ottawa, Canada, August 14 – 21. (poster)
- Haddock, G. and R. Hickey, 1999, *Cumulative slope length calculations using ArcView GIS Version 3.1*. Proceedings of the Association of American Geographers Annual Meeting. March 23 – 27. (abstract)
- Lawley, J., R. Hickey, and G. Wright, 1999, *Spatio-temporal Data Visualisation to Aid Multiple-use Forest Management*. Proceedings of GIS '99, Vancouver, Canada, March 1 – 4, 1999 (paper)
- Dentith, M., W. Featherstone, and R. Hickey, 1998, *Towards an Understanding of the Controls on Seismicity in the Southwest of Western Australia*. Australian Earthquake Engineering Society Perth, WA, November. (paper)
- Lawley, J., R. Hickey, and G. Wright. 1998. *Visualisation and Animation of Spatio-temporal Data to Aid Multiple-use Forest Management*. Proceedings of AURISA 1998 National Conference, Perth, WA 23 – 27 November. (poster)
- Sandison, D., R. Hickey, G. Wright, and G. Metternicht, 1998, *Using Landsat TM to Map Vegetation and Four Dimensional Smog Visualisation in Perth, Western Australia*. Proceedings of AURISA 1998 National Conference, Perth, WA, 23 - 27 November. (paper)
- Sandison, D., R. Hickey, G. Wright, and G. Metternicht, 1998, *From Satellite to Smog*. Proceedings of AURISA 1998 National Conference, Perth, WA 23 – 27 November. (poster)
- Sandison, D., R. Hickey, G. Wright, and G. Metternicht, 1998, *Four-Dimensional Visualisation of Smog in Perth*. Proceedings of MSIA 1998 National Conference. Fremantle, WA, 24 - 28 May. (paper)
- Sandison, D. and R. Hickey, 1998, *Time Slices of Nitrogen Oxides and Ozone Concentrations Throughout March 16th, 1994: A Typical "Coastal" Smog Event for Perth*. The WALIS Forum. Perth, WA, 8 - 9 April. (poster)
- Boulay, R., D. Bush, and R. Hickey, 1997, *Applying GIS Technology to Coastal Risk Assessment: Jekyll Island, GA*, Proceedings of Coastal Zone '97. Boston, MA, July 20 - 26. (abstract)
- Bush, D., Boulay, R, B. Johnson, R. Hickey, O. Pilkey, and W. Neal. 1996, *Coastal Hazards, Risk Assessment, and Property Damage Mitigation, Jekyll Island, Georgia*. Poster presented at Insurance Institute for Property Loss Reduction Third Annual Congress on Natural Hazards Loss Reduction. Dallas, TX. (abstract)

Boulay, R, B. Johnson, D. Bush\*, R. Hickey\*, O. Pilkey, and W. Neal. 1996, *Coastal Hazards, Risk Assessment, and Property Damage Mitigation: Jekyll Island, Glynn County, GA*: Proceedings of Tidalites '96 (the International Conference on Tidal Sedimentology). Savannah, GA. (abstract)

Berardinelli, J. and R. Hickey. 1996. *Weather and You: Interactions between Weather and Everyday Life*. Presented at The Georgia Academy of Science Annual Meeting. Albany, GA. (Abstract published in the Georgia Journal of Science. V. 54, no. 1, p. 50.)

### **Book Reviews**

Hickey, R. (2018). Atlas Obscura by J. Foer, D. Thurax, and E. Morton for *Cartographic Perspectives*, v. 89, pp. 58-59.

Hickey, R., 2014, Lake Effect by Mark Monmonier for *Cartographic Perspectives*, n. 77, pp. 67-68.

Hickey, R., 2007, Resource Management Information Systems: Remote Sensing, GIS, and Modelling (2<sup>nd</sup> Edition) by K. McCloy for *The Journal of Spatial Sciences*. V. 51, no. 1, pp. 203-204.

Hickey, R., 2006, GIS Fundamentals, 2<sup>nd</sup> edition by P. Bolstad for *The Journal of Spatial Sciences*. V. 51, no. 1, pp. 158-159.

Hickey, R., 2003, GIS Fundamentals, by P. Bolstad for *Transactions in GIS*, v. 7, no. 1, pp. 155-156.

Hickey, R., 2002, Practical Applications of GIS for Archaeologists, by K. Westcott and R. Brandon, ed., for *Cartography*, v. 31, no. 1, p. 121.

Hickey, R., 2001, Advances in Remote Sensing and GIS Analysis, edited by P. Atkinson and N. Tate for *Cartography*, V. 30, no. 1, p. 75.

Hickey, R., 2001, The GIS Book, by G.B. Korte for *Cartography*, V. 30, no. 1, p. 74.

Hickey, R., 1998, "Fundamentals of Geological and Environmental Remote Sensing" by R.K. Vincent, for *Cartography*, v. 27, no. 2, p.78.

Hickey, R., 1998, "Spatial Analysis: Modelling in a GIS Environment" edited by P. Longley and M. Batty, for *EOM*, v. 7, no. 7, p. 37.

Hickey, R., 1997, "An Intensive Comparison of Triangulated Irregular Networks (TINs) and Digital Elevation Models (DEMs)," Monograph 45, *Cartographica*, 31(2), 1994, by M.P. Kumler, for *Cartography*, v. 26, no. 2, p. 61.

Hickey, R., 1997, "Interactive and Animated Cartography" by M.P. Peterson, for *Cartography*, v. 26, no. 2, p. 64.



Hickey, R., 1997, "Spatial Database Transfer Standards 2: Characteristics for assessing standards and full descriptions of the national and international standards in the world," by H. Moellering and R. Hogan (editors), for *Cartography*, v. 26, no. 2, p. 66.

**Publications (in review/prep.)**

Hickey, R. S. Quinn, and G. Schag. In review. *Directional slope: Going deeper into DEM analysis with Python customization*. ArcUser. Submitted on 1 feb, 2019

Hibden, S., J. Cannon, and R. Hickey. In prep. *The GIS Job Market: Recent Trends*. Directions Magazine.

Hickey, R., and E. Delgado, in prep, Geography, Maps, and the Annals: 50 Years of History. *Cartographic Perspectives*.

Hickey, R., in prep, Australia in Oak, Copper, and Quartz. *Journal of Maps*.

**Directed Student Research Projects:**

➤ Ph.D.

- Ed Oldmeadow, 1998 - 2009, School of Applied Geology. *Geochemistry and Sedimentology of Roebuck Bay*. Curtin University (associate supervisor).
- Akhilesh Singh, 1998 – 2001, School of Applied Geology. *Trace element distribution in Permian coal and their impact on environment, Moher Sub-basin, Singrauli, India*. Curtin University (associate supervisor).
- Marcus Sweetapple, 1998-2001, School of Applied Geology. Curtin University (associate supervisor).
- Robert Corner: 1996 - 1999, *Knowledge Representation in GIS*. Research supported by CSIRO (government research agency). School of Spatial Sciences. Curtin University.

➤ MS.

- Amanda Moody, 2018-pres. *An evaluation of different LS factor calculation methods*. CERM Program, CWU.
- Troy Peterson, 2016-pres. *Whiptail lizards in central WA*. Biological Sciences program, CWU (Committee Member)
- Mary Keffer, 2017-pres. *Source-bordering dune response to land use change in the western portion of Othello Basin, Grant County, Washington from 1949 to present*. CERM Program, CWU (Committee Member)
- Jonathan Betz, 2014 - present. *Wildfire and road distance impacts on the colonization of forest plant species, Table Mountain, WA*. Biological Sciences program, CWU (Committee Member).
- Jefferson Brooks. 2017-2018. *Camouflage and Sexual dimorphism in the Northern Pacific Rattlesnake*. Biological Sciences program, CWU (Committee Member)
- Kaleb Javier, 2016-2017. *Measuring the Economic Impact of Washington State Department of Natural Resources Forestry Practices on Western Washington Home Sale Prices*. CERM program, CWU (Committee Member).
- Joseph Chase, 2016-2017. *Effects of Wildfires on Rattlesnake (Crotalus oreganus) Growth and Movement in Washington State*. Biological Sciences program, CWU (Committee Member).

- Todd Stoothoff, 2016-2017, *The Economic Impacts of Cougars in Western Washington*. CERM Program, CWU (Committee Member).
- Ray Geroso, 2008-2014, *Modelling rattlesnake habitat and movement*. REM Program, CWU. (co-supervised with Dan Beck, Biology)
- Anna Yost, 2012 - 2014, *Elk Habitat Modeling*, WA. REM Program, CWU. (co-supervised with Tom Cottrell, Biology).
- Marc Fairbanks, 2005-2012, *Case studies in GIS and 3-D analysis and spatial thinking using Tryon Creek excavation data, Hells Canyon, OR*. REM Program, CWU. (co-supervised with Steve Hackenberger, Anthropology).
- Jamie Cannon, 2010-2012, *Prioritizing Forest Restoration Treatments Areas Using Decision Support and Geospatial Analysis on the Okanogan-Wenatchee National Forest, Washington, USA*. REM Program, CWU
- Michelle Deal, 2011-2012, *Gold Mineralization at the Buckhorn Mountain Gold Skarn*. Department of Geology and Geophysics, University of AK - Fairbanks (committee member).
- Karl Swanson. 2010-2012. *Applying GIS metrics to determine degree of glacial modification in mountainous landscapes*. Geosciences program, CWU. (committee member)
- Tessa Brookman, 2008-2010, *Treeline change related to Climate change*. REM Program, CWU. (committee member)
- Patrick Emblidge, 2006-2010, *Habitat modeling and natural history of the Gila Monster (*Heloderma suspectum*) in southwestern Utah*. Biological Sciences program, CWU (Committee Member).
- Ben Reilly, 2005-2009, *Global warming and landuse change, Churchill, Ontario*. REM Program, CWU.
- Ben Sainsbury, 2006-2009, *Managing geographic data within a web mapping environment*. REM Program, CWU.
- Begley, James, 2003 – 2008, *Predicting Swakane Canyon bighorn sheep distribution and potential overlap with domestic sheep grazing allotments*. REM Program, CWU (Committee Member).
- Erin Woodard, 2002 – 2008, *A predictive model utilizing GIS for Saddle Mountain archaeology*. REM Program, CWU (Committee Member).
- Tari, Mike, 2003 – 2006, *Modeling Spotted Owl habitat on the eastern slopes of the Cascades*. REM Program, CWU.
- Tim Blocher, 2005, *Modern Reform-era (1978-present) Policy and resource dynamics in Ganquan, Yaoxian, and Zhouzhi Counties in Shaanxi Province, The People's Republic of China*. REM Program, CWU (Committee Member).
- Galloway, Aaron, 2002 – 2004, *The use of rural school bus routes and K-12 students in indexing distribution of cougar prey species*. REM program, CWU.
- Bottelli, John, 2002- 2004, *A historical atlas for the Couer D'Alene Tribe*. REM Program, CWU (Committee Member).
- Nason, Sarah, 2003 – 2004, *Assessment of conservation planning efforts in the Swauk Creek watershed, Washington*. REM Program, CWU (Committee Member).
- Suzanne Wade: 2000 - 2004, *Developing a GIS-based coastal management plan, 80 Mile Beach, Western Australia*. REM Program, CWU.
- Scott Turner: 2000 - 2001, *Vervet monkeys in Barbados - management implications*. REM Program, CWU. (Committee member).



- Dwight Francis, 1999 – 2000, *A spatial decision support system for rapidly assessing the damage caused by natural disasters (a tropical cyclone perspective)* (co-supervisor). MSc by coursework. Curtin University.
- Jane Lawley: 1998 - 2000, *Endangered Species Habitat Mapping, Kingston Project, Manjimup*, WA. Research supported by the Department of Conservation and Land Management. Curtin University.
- Janet Gilchrist: 1999, *Modelling asthma epidemiology using geographic information systems*. Curtin University.
- Dan Sandison: 1997 - 1999, *Assessing the Dynamic Environmental Concerns of Air Quality with a Limited Three Dimensional Data Set*. Research supported by the Western Australia Department of Environmental Protection. Curtin University.
- Postgraduate Projects
  - 2002, Anouk van Zijp: *The impact of high elevation logging on snowpack melting and stream hydrographs*. 3 month Occupational Training project, student from Delft University in the Netherlands. CWU
  - 1999, Michael Rotondo: *Potential for the distribution of very high resolution imagery using the world wide web*. Assistance provided by Earth Resources Mapping. Curtin University.
  - 1999, Reny Koevoets: *The design and development of a Rare Flora Prediction GIS*. Research supported by CALM. 3 month Occupational Training project, student from Delft University in the Netherlands. Curtin University.
  - 1999, Brown, Brad: *Mapping bauxite potential using Landsat TM, Darling Range, WA*. Curtin University.
  - 1998, Richards, Brad: *Bauxite Exploration of the Mitchell Plateau using Landsat TM*. Curtin University.
  - 1998, Mullen, Narelle: *Developing a GIS-based Reforestation plan, Rottnest Island, WA*. Research supported by the Rottnest Island Authority. Curtin University.
  - 1997, Dobra, Allan: *Using a GIS to Evaluate the Impact of Native Title Legislation*. Research supported by Western Mining. Curtin University.
  - 1997, Franke, Jochen: *Forest Cover Changes 1942 - 1997, Rottnest Island, WA*. Research supported by the Rottnest Island Authority. Curtin University.
- Honors Projects
  - 2018-2019: Jessee Squib: *An Evaluation of Kestrel Populations in Washington State (2006-2016)*. Douglas Honors College thesis.
  - 2015-2017: Gavin Schag: *UAV Photogrammetry: Structure from Motion Data Evaluation for Digital Elevation Model (DEM) Generation*. CWU McNair Fellowship program. Co-supervised by Elvin Delgado.
  - 2011/2012, Joe Keeney, *Holocene House Hunting: Using Season-Sensitive Multi-Spectral Imagery for Locating Prehistoric Human Dwellings*. Research supported by the CWU Science Honors program.
  - 1999/2000, Michelle Crean: *An evaluation of remotely sensed data for mudflat mapping, Eighty Mile Beach, Western Australia*. Research supported by CALM. Curtin University.
  - 1999, Craig Richards, School of Applied Geology: *Classification schemes for pegmatites and contained mineral deposits*. (co-supervisor) Curtin University.

- Undergraduate Research Projects

- 2019: Caleb Valko: *Mapping known and potential residential solar installations, WA.*
- 2019: Isaac Anzlovar: *Using Strava data to map unknown trails, Cle Elum, WA.*
- 2019: Sarah Hibden, *An evaluation of desired GIS skills in the workplace.* Part of her graduate assistantship, but not a part of MS work.
- 2017: Lacey Meyers. *Historic and Current Military Mapping.* CWU.
- 2015-2017: Gavin Schag: *Development of a methodology for using LIDAR to assess rooftop solar potential.* Co-supervised by Elvin Delgado. CWU.
- 2016-2017: Trinity Turner. *Using ESRI Story Maps to increase cartographic literacy.* CWU.
- 2016, Trinity Turner: *Russian history in Alaska – an ESRI Story Maps project.* CWU. Working with the Sitka National Park.
- 2015: Kurtis Carpenter: *Building a GIS database for the Sitka National Park, AK.* CWU. Working with the Sitka National Park.
- 2015: Sam LaFramboise: *Ecological mapping from a fishing tour boat, WA to AK.* CWU.
- 2014, Keven Samuelson: *Campsite mapping in the Wenatchee National Forest.* CWU (working with the USFS).
- 2013, Taylor Steele: *Land Management with Multiple Stakeholders: The Kittitas Valley Event Center Example.* CWU (working with the Event Center)
- 2007-2008, Casey Kolowinski and Nate Long (co-supervised with Jim Schwing, CS): *Interactive mapping software: developing life maps on top of Google Maps.* CWU.
- 2007, Adam Merrill (graduate RA project): *Calculating the carbon footprint of the tobacco industry.* CWU.
- 2007, Jennifer Evans (graduate RA project): *Estimating environmental resiliency for the Westburg Trail, Ellensburg, WA.* CWU.
- 2007, Ryan Nolet: *Alternative uses for interstate right-of-way areas.* CWU.
- 2006, Brad Wilson: *Field studies at Roebuck Bay, Western Australia.* CWU.
- 2006: Jeff Watson: *Ellensburg City GIS Implementation.* CWU.
- 2006: Ben Sainsbury: *Recreation mapping.* CWU.
- 2006, Randy Throop: *Setup, implementation, and training, Trimble GPS/PDA systems.* CWU.
- 2005, Tony Sowards: *The geomorphology of Roebuck Bay, Western Australia.*
- 2004, Marc Fairbanks, *Swauk-Blewitt Cross-country ski map.* CWU.
- 2004, Patrick Butler, *Mapping 100 years of change, Ellensburg, WA.* CWU
- 2004, Gretchen Volker, *Fire Management in Western Australia.* Overseas internship. CWU.
- 2002: Ora Menees and Lise Goss, *Field studies at Roebuck Bay, Western Australia.* CWU.
- 2002, Ora Menees, *XC ski map, Swauk-Blewitt area, Washington.* CWU.
- 2001, Lise Goss, *Assessing the impact of fragmentation on the shrub-steppe habitat.* CWU.
- 2001, Hilary Cox, *Environmental modelling of Roebuck Bay, Western Australia.* CWU.
- 2001, Jill Woolcock, *Crime mapping in the upper Yakima Valley, Washington.* CWU
- 2000, Lewis Yaeger: *Remote sensing applications for trail impact mapping.* CWU.



- 2000, Bethwyn McCaughan: *Developing a GIS-based tree management plan, Rottnest Island, Western Australia*. Research supported by the Rottnest Island Authority. Curtin University.
- 1999, Doug Szczecinski: *Evaluation of measured and calculated LS (slope length/slope angle) factors*. Curtin University.
- 1999, Warwick Harry: *Image archiving and metadata development*. Curtin University.
- 1999, Justin Dwyer, *Environmental Impact Mapping, Roebuck Bay, WA*. Data and assistance courtesy of CALM. Curtin University.
- 1999, Robert Thomson: *Weed infestation mapping and modelling, Rottnest Island, WA*. Data and assistance courtesy of the Rottnest Island Authority. Curtin University.
- 1999, Lori Hawkes: *A feasibility study of implementing a GIS for vineyards*. Curtin University.
- 1999, James Ellis: *The development of the Unofficial IDRISI Resource Centre, Western Australia*. Curtin University.
- 1999, Grecian Dempster: *Alienation of land in the wheatbelt region between 1931 and 1984*. Data and assistance courtesy of the Department of Agriculture. Curtin University.
- 1999, Steven Ackerly: *Mineral Potential Mapping Investigation*. Curtin University.
- 1998, Stuart Gordon: *Erosion modelling with digital elevation models in a geographical information system*. Curtin University.
- 1998, Mark Smith: *An evaluation of the status of web-based GIS*. Curtin University.
- 1998, Shaun Centa: *The use of 3 dimensional imaging for gold prediction and display using MapInfo and Vertical Mapper*. Supported by RGC Exploration. Curtin University.
- 1998, Jenny Wilson: *The use of remotely-sensed data to assess the impact on vegetation condition of the Central Pilbara Railway Reserve, Karijini National Park, WA.*. Research supported by CSIRO (government research agency). Curtin University.
- 1998, Reinaard Manger: *Mapping Subsurface Structures, Rottnest Island, WA*. Research supported by the Rottnest Island Authority. Curtin University.
- 1998, France, Drew: *Developing an online spatial hotel directory for Perth*. Curtin University.
- 1997, Chris Pavlinovich: *Metadata Standards*. Research supported by World Geoscience. Curtin University.
- 1997, Damon Clark: *GIS and Gold Exploration*. Research supported by Newcrest Mining. Curtin University.
- 1997, Dunn, Matthew: *Slope Angle and Length Calculations within a GIS*. Curtin University.
- 1997, Monageng Pule: *Botswana on the Internet*. Curtin University.
- 1997, Chris Maude: *A review of the Status of GIS Applications in the Field of Exploration Geology*. Research supported by the Resource Service Group (RSG). Curtin University.
- 1996, Jenny Ralston: *A GIS Analysis of the Spatial Relations among the Archaeological Structures of Millionaires Village, Jekyll Island, GA*. Research supported by the Jekyll Island Authority. University of West Georgia.
- 1996, Rachel Boulay: *GIS Supports Coastal risk Assessment*. University of West Georgia.
- 1996, Michael Rivera: *A Web Page for the Geography Program*. University of West Georgia.
- 1995, Jenny Ralston & Jimmy Berardinelli, *Weather and You: Interactions Between Weather and Everyday Life*. University of West Georgia.