

Scott D. Bassett

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RESEARCH INTERESTS

Multidisciplinary integrated modeling approaches, conservation biology, ecology, hydrology, landscape ecology, environmental planning, GIS, remote sensing, alternative futures assessment and spatial modeling.

EDUCATION

D.Des., Landscape Architecture and Environmental Planning, Harvard University, Graduate School of Design, 2001
M.S., Fisheries and Wildlife Ecology, Utah State University, 1998
B.S., Geography and Anthropology, minor in Computer Science, Utah State University, 1993

EMPLOYMENT

Research

2007 – present **Assistant Professor**, University of Nevada, Reno, Nevada.
2002 - 2007 **Assistant Research Professor**, Desert Research Institute, Reno, Nevada.
2001 - 2002 **Post-doctoral Fellow**, Desert Research Institute, Reno, Nevada.
1998 - 2001 **Graduate Research Assistant**, Harvard University.
1995 - 1998 **Graduate Research Assistant**, Utah State University.
1993 - 1995 **Research Associate**, Utah State University.

Teaching

Instructor, *Environmental Planning—GEOG 466/666 (Spring 2010)*
Instructor, *Introduction to Geotechnology—GEOG 210 (Spring 2009, Fall 2009)*
Instructor, *Planning Studio—GEOG 760 (Spring 2008, Spring 2009, Spring 2010)*
Instructor, *Conservation of Natural Resources—GEOG 435/635 (Fall 2008, Fall 2010)*
Instructor, *History and Nature of Planning—GEOG 710 (Fall 2008, Fall 2009, Fall 2010)*
Instructor, *Introduction to Planning Studio—GEOG 759 (Fall 2008, Fall 2009)*
Instructor, *Urban Landscape Analysis—GEOG 454/654 (Spring 2008)*

Instructor, *Land Use Planning—GEOG 456/656 (Fall 2007)*

Instructor, *Arid Lands Research Consortium GIS Workshop (Oct 2008)*, Tottori University, Japan.

Guest Instructor, *Interdisciplinary Modeling: Water-Related Issues—NRES 701D (Summer 2008)*

Guest Instructor, *Undergraduate Core Studio (Spring 2006)*, University of Nevada, Las Vegas.

Guest Instructor, *Small Watershed Hydrology (Fall 2005, Spring 2007)*, University of Nevada, Reno.

Teaching Fellow, *Theories and Methods of Landscape Planning (Fall 2000)*, Harvard University.

Teaching Fellow, *Third Semester Core Studio (Fall 2000)*, Harvard University

AWARDS

Howard T. Fisher Prize in Geographic Information Science, Harvard University, 2001
Outstanding Graduating Senior in Geography and Earth Resources, Utah State University, 1993
Anthropology Student of the Year, Utah State University, 1992

SYNERGISTIC ACTIVITIES

Adjunct/Visiting Fellow, Institute for Rural Futures, University of New England, Armidale, NSW, Australia. 2006-present.
Committee Member, NGIS. Paper organizer for the 2009 NGIS conference and voting committee member for the NGIS. 2008-present
ACHI08 Committee Member, ACHI08 conference proceedings reviewer held in Sainte Luce Martinique in 2008.
NSF peer review panel member, NSF Human and Social Dynamics (HSD) program: Agents of Change-Social, Political, and Economics Dynamic. Washington, DC. May 2007.
USEPA peer review panel member, USEPA Grants: Collaborative Science and Technology Network for Sustainability: Communities and the Built Environment. Washington, DC. August 2006.
Landscape Ecology Expert, Expert Panel on Environmental Impacts of Dust Suppressants University of Nevada, Las Vegas, Nevada. May 2002.

Assistant Facilitator of Discussion, Alternative Futures Workshop, International Symposium on Landscape Futures, University of New England, Armidale, NSW, Australia. September 1999.

Session Chair and Facilitator of Discussion, Applications of GIS to the Sustainability of Renewable Natural Resources, Renewable Natural Resources Foundation, Jackson Hole, Wyoming. September 1996.

Environmental Management manuscript reviewer
 NATO manuscript reviewer
 U.S. Army Research Office proposal reviewer
 NSF proposal reviewer

UNR Specific

Director Land Use Planning and Policy Program. University of Nevada, Reno. 2010-present.

Faculty Member, Land Use Planning and Policy Program. University of Nevada, Reno. 2007-present.

Faculty Member, Hydrologic Sciences Program. University of Nevada, Reno. 2008-present

Faculty Member, Ecology, Evolution and Conservation Biology Program. University of Nevada, Reno. 2008-present.

Member, Network of Faculty for Undergraduate Research (NFUR). University of Nevada, Reno. 2007-present.

Space Committee, Department of Geography, University of Nevada, Reno. 2008-present.

Personnel Committee, Department of Geography, University of Nevada, Reno 2009-present

Graduate Curriculum Committee, Department of Geography, University of Nevada, Reno. 2009-present

MSESE Computing Committee, Mackay School of Earth Sciences and Engineering, University of Nevada, Reno 2009-present.

MSESE Center for Mining/Exploration Committee, Mackay School of Earth Sciences and Engineering, University of Nevada, Reno. 2009-present

Assistant Professor, Paleoclimate Modeler Search Committee Chair, Department of Geography, University of Nevada, Reno 2009-2010.

Assistant State Climatologist Search Committee Member, Department of Geography, University of Nevada, Reno 2009.

PUBLICATIONS

Refereed Journals

Trammell, E. J. and S. D. Bassett. *In preparation*. Impact of urban form on avian diversity. *Biological Conservation*.

Trammell, E. J., P. J. Weisberg, and S. Bassett. *In review*. Avian response to urbanization in an

arid riparian context. *Landscape and Urban Planning*.

Carroll, R. W. H., G. Pohl, D. McGraw, C. Garner, A. Knust, D. Boyle, T. Minor, S. Bassett and K. Pohlmann. 2010. Mason Valley Ground-water Model: Linking surface and ground water processes in the Walker River Basin, Nevada. *Journal of the American Water Resources Association* **46**(3):554-573.

Kahyaoglu-Koracin, J., S. Bassett, D. A. Mouat, and A. Gertler. 2009. A scenario-based modeling system to predict the air quality impact from future growth. *Atmospheric Environment* **43**:1021-1028.

Trammell, E. J., K. Berry, S. Bassett and D. Sada. 2008. Distribution and recovery of vegetation in Ash Meadows national Wildlife Refuge, Nevada. *Southwestern Naturalist* **53**(3):326-334.

Shearer, A. W., D. A. Mouat, S. D. Bassett, M. W. Binford, C. W. Johnson, and J. A. Saarinen. 2006. Examining development-related uncertainties for environmental management: Strategic planning scenarios in Southern California. *Landscape and Urban Planning* **77**(4):359-381.

Stuart, J., J. Jaquish, S. Bassett, F. Harris, and W. Sherman. 2005. An interactive visualization method for integrating digital elevation models and geographic information systems vector layers. *Lecture Notes in Computer Science, LNCS-3804*:553-561.

Kepner, W. G., D. J. Semmens, S. D. Bassett, D. A. Mouat and D. C. Goodrich. 2004. Scenario analysis for the San Pedro River, analyzing hydrological consequences of a future environment. *Environmental Monitoring and Assessment*, **94**:115-125.

Bassett, S. D. and T. C. Edwards, Jr. 2003. Effect of different sampling schemes on the spatial placement of conservation reserves in Utah, USA. *Biological Conservation*, **113**:141-151.

Creque, J., S. D. Bassett and N. E. West. 1999. Viewpoint: Delineating ecological sites. *Journal of Range Management*, **52**:546-549.

Book Related

Bacon, S. N., G. K. Dalldorf, E. V. McDonald, S. E. Baker, D. E. Sabol Jr., T. B. Minor, S. D. Bassett, S. R. MacCabe and T. F. Bullard. 2010. Predictive soil maps based on geomorphic mapping, remote sensing and soil databases in the desert southwest. Pages 409-419 in Boettinger, J., D. Howell, A. Moore, A. Hartemink and S. Kienast-Brown, eds., *Digital soil mapping: bridging research, production and*

- environmental application, Springer, Netherlands..
- Shearer, A. W., D. A. Mouat, S. D. Bassett, M. W. Binford, C. W. Johnson, and J. A. Saarinen. 2009. *Land Use Scenarios: Environmental Consequences of Development*. Taylor & Francis Ltd, Boca Raton, Florida, USA. 422pp.
- Mouat, D. A., S. Bassett, and J. Lancaster. 2006. The use of alternative futures in a strategy to assess the likelihood of land degradation leading to increased subsequent political instability. Pages 601-614 in *Desertification in the Mediterranean Region: a Security Issue*, W. G. Kepner, J. L. Rubio, D. A. Mouat and F. Pedrazzini eds. Springer, The Netherlands.
- Steinitz, C., H. Arias, S. Bassett, M. Flaxman, T. Goode, T. Maddock, III, D. Mouat, R. Peiser and A. Shearer. 2003. *Alternative futures for changing landscapes: the upper San Pedro River basin in Arizona and Sonora*. Island Press. Washington, DC.
- Falconer, A. F., D. W. Wight, R. D. Ramsey, T. C. Edwards, Jr., S. D. Bassett, and C. G. Homer. 1996. Issues of GIS: "database thinking" and database structure. Pages 259-268 in J. M. Scott, T. H. Tear, and F. W. Davis, editors. *Gap Analysis: a landscape approach to biodiversity planning*, American Society of Photogrammetry and Remote Sensing, Bethesda, Maryland, USA.
- Edwards, T. C., Jr., C. H. Homer, S. D. Bassett, and A. Falconer. 1995. Protection status of vegetation cover-types in Utah. Pages 463-465 in E. T. LaRoe, G. S. Farris, C. E. Puckett, P. D. Doran, and M. J. Mac, editors. *Our Living Resources. A report to the Nation on the distribution, abundance, and health of U.S. plants, animals, and ecosystems*. USDI National Biological Service, Washington, D.C.
- Conference Papers and Presentations**
- Morton, C., J. Huntington, and S. Bassett. Comparing remotely sensed and measured energy balance for playa and phreatophyte shrub groundwater discharge areas, Dixie Valley, NV. *Remote Sensing and Hydrology 2010 Symposium*. Jackson Hole, WY. 09/2010
- Bassett, S. D., D. A. Mouat, J. S. Thomas and P. Marin. *Alternative futures assessment*. Bassett, S. D. and M. R. Dolloff. Local land use scenario formulation using the IPCC SRES climate change scenarios within Nevada. Invited presentation to the Operation Assurance Forum, Fallon, NV, USA. 05/2010.
- Bassett, S., D., P. A. Brinkman, D. A. Mouat, D. P. Boyle and multiple students. The role of planning students: an academic's perspective. Invited keynote address at the 37th Annual conference of the Nevada Chapter of the American Planning Association, Reno, NV, USA. 10/2009.
- Boyle, D. P., T. B. Minor, G. Pohl, A. Knust, C. Garner, R. Carroll, D. McGraw, S. Bassett, C. Barth, D. Norpchen and A. Stroud. Development and testing of a decision support tool in support of water right acquisitions in the Walker River Basin. *International Symposium on Terminus Lakes*, Reno, NV. 10/2009.
- Garner, C., D. Boyle, S. Bassett, S. Markstrom, D. Brookshire, C. Broadbent, D. Coursey, V. Tidwell, H. Gupta and E. Triana. Development of a hydrologic model to assess the feasibility of water leasing in the Middle Rio Grande Basin. *SAHRA 2009 Annual Meeting, NSF, Sustainability of Semi-arid Hydrology and Riparian Areas*. Tucson, AZ. 10/2009.
- Bassett, S., D. Mouat, A. Shearer, S. Thomas, D. Casserly, P. Marin, Q. Korbulic and E. J. Trammell. *Alternative futures assessment: GIS framework components*. Invited presentation to the Sustaining Military Readiness Conference. Phoenix, AZ, USA. 08/2009.
- Norpchen, D., E. Trammel, S. Bassett and D. Sada. 3D visualization: McCarran Ranch restoration project. *Nevada Geographic Information Society Conference*. Reno, NV, USA. 05/2009
- Trammel, E., J., P. Weisberg, and S. Bassett. *Nevada Geographic Information Society Conference*. Reno, NV, USA. 05/2009
- Schumer, R., A. Knust, D. Boyle and S. Bassett. Comparison of statistical and physically based modeling of flash floods in the Southwestern U.S. *American Geophysical Union*, San Francisco, CA, USA. 12/2008
- Mouat, D., B. Salem, S. Bassett and M. Eissa. *Alternative futures for Egypt: a case study in the Lower Nile River Delta*. 9th International Conference on the Development of Drylands, Alexandria, Egypt. 11/2008.
- Bacon, S. N., S. Bassett, E. V. McDonald, G. K. Dolldorf, S. E. Baker, D. E. Sabol, S. R. MacCabe and T. F. Bullard. Predictive soil maps based on geomorphic mapping, remote sensing, and soil databases in the desert southwest U.S.A. 3rd Global Workshop on Digital Soil Mapping, Utah State University, Logan, Utah. 10/2008
- Bassett, S., D. A. Mouat, C. Barth, D. Casserly, S. Cleary, G. Dollarhide, A. Grimmer, P. Marin, J. Ross-Hauer, B. Sendall, E. J. Trammell and M.

- Velotta. A scenario-based urban growth study in the greater Las Vegas area. Nevada Geographic Information Society, Las Vegas, NV, USA. 05/2008
- Barth, C., D. Boyle, G. W. Lamorey, S. Bassett. Toward improving streamflow forecasts using SNODAS products. American Geophysical Union, San Francisco, CA, USA. 12/2007
- Bassett, S., D. Mouat, and D. Brunckhorst. Alternative futures and critical uncertainties: a hands-on workshop. Department of Primary Industries, Place & Purpose Conference on Spatial Models for Natural Resource Management and Planning. Bendigo, Australia. 05/2007.
- Mouat, D., S. Bassett, and D. Brunckhorst. Addressing the future through understanding critical uncertainties and linked process models. Department of Primary Industries, Place & Purpose Conference on Spatial Models for Natural Resource Management and Planning. Bendigo, Australia. 05/2007.
- Bassett, S., D. Mouat, and D. Boyle. Alternative futures analysis: A scenario-based strategic planning assessment technique to aid environmental management. 2006 Desert Knowledge Symposium and Business Showcase: Global Desert Opportunities. Alice Springs, Australia, 11/2006.
- McDonald, E. V., S. D. Bassett, S. N. Bacon, T. B. Minor, and T. F. Bullard. Integrated desert terrain forecasting for military operations. 25th Army Science Conference. Orlando, Florida, 11/2006.
- Mouat, D. and S. Bassett (S. Bassett presenter). Drought and desertification: Envisioning the future. Invited presentation at the GSA conference on managing drought and water scarcity in vulnerable environments. Longmont, CO. 09/2006.
- Mouat, D., W. Tao, S. Bassett, and J. Lancaster. Alternative futures, sustainable development and desertification: Implications for China. 8th International Conference on Dry lands Development. Beijing, China. 02/2006
- Stuart, J., J. Jaquish, S. Bassett, F. Harris and W. Sherman An interactive visualization method for integrating digital elevation models and geographic information systems vector layers. International Symposium on Visual Computing. Lake Tahoe, Nevada. 12/2005
- Boyle, D. P., R. Naranjo, G. Lamorey, S. Bassett, H. Gupta, and D. Brookshire. Development of an integrated hydrologic model to explore the feasibility of water banking and markets in the southwestern U.S. International Congress on Modelling and Simulation Advances and Applications for Management and Decision Making. Melbourne, Australia. 12/2005
- Trammell, J., S. Bassett, D. Sada, K. Peternal, J. Needham, and C. Dunn. Scenario analysis of the McCarran Ranch restoration projection on the Truckee River, Nevada. 2005 Truckee River Symposium, Integrating Policy and Science Along the Truckee River. Reno, Nevada. 10/2005
- Bassett, S. D., J. Trammell, D. Sada, and J. Brock. Biorecovery scenario assessment of the McCarran Ranch restoration project on the Truckee River, Nevada. The Universities Council on Water Resources/NIWR Annual Conference on River and Lake Restoration: Changing Landscapes. Portland, Maine. 09/2005
- Kahyaoglu-Koracin, J., Scott Bassett, David Mouat and Alan Gertler. A scenario-based modeling system to predict the air quality impact from future growth. 3rd International Symposium on Air Quality Management at Urban, Regional and Global Scales & the 14th Regional IUAPPA Conference. Istanbul, Turkey. 09/2005
- Bassett S. and D. Boyle. 2004. An overview of spatial analysis and model integration for environmental understanding: Military implications. Desert Surficial Process and Landscape Dynamics on Military Lands Scientific Advances, New Challenges, and Technology Transfer Conference. Zzyzx, California. 09/2004
- Bullard, T., E. McDonald, S. Bassett, and J. Burke. Geomorphic mapping in support of the ITAM program at the U.S. Army National Training Center, Fort Irwin, CA. Poster presented at the Desert Surficial Process and Landscape Dynamics on Military Lands Scientific Advances, New Challenges, and Technology Transfer Conference. Zzyzx, California. 09/2004
- Boyle, D. P., P. E. Fritchel, G. Lamorey, S. Markstrom, and S. Bassett. 2004. Evaluation of a Hydrologic Model of the Rio Grande (USA) Using Observed and Modelled Land Surface Fluxes and States. International Environmental Modelling and Software Society (iEMSs), International conference on complexity and integrated resources management. Osnabruck, Germany. 06/2004

- Mouat, D. and S. Bassett. 2003. The use of alternative futures in a strategy to assess the likelihood of increased land degradation and subsequent political instability. NATO Conference on Environmental Security. Valencia, Spain. 05/2003
- Mouat, D., S. Bassett, and J. Lancaster. 2003. Rangeland desertification: Evaluating land use options with alternative futures analysis. International Rangelands Conference, Durban, South Africa. 09/2003
- Bassett, S. and D. Mouat. 2003. Alternative Futures Analysis. Invited presentation at the GeoBase Compass Conference, Keystone, CO. 5/21/2003.
- Kepner, W. G., D. J. Semmens, S. D. Bassett, D. A. Mouat, D. C. Goodrich. 2003. Scenario analysis for the San Pedro River, analyzing hydrological consequences of a future environment. ReVA-MAIA Conference, King of Prussia, PA 5/2003.
- Mouat, D., S. Bassett, T. Maddock, III, R. Anderson and T. Goode. 2002. Alternative Futures for the Upper San Pedro River Basin Arizona, U.S.A. and Sonora, Mexico. Invited co-presentation presented at the Department of Defense Conservation Conference, Tucson, AZ. 6/2002.
- Mouat, D. and S. Bassett. 2002. Alternative Futures for the Upper San Pedro River Basin Arizona, U.S.A. and Sonora, Mexico. Invited co-presentation presented at the Environmental Summit on the West II, Western Governors' Association and the White House Council on Environmental Quality, Salt Lake City, UT. 4/2002.
- Mouat, D., J. Lancaster and S. Bassett. 2002. Water Source and Linear Oasis: Assessing Alternative Futures for the Kuiseb River Basin, Namibia. Presentation at the International Symposium, Rural Community Interaction and Workshop for Combating Desertification, Cape Town, South Africa. 4/2002.
- Steinitz, C., H. Arias, S. Bassett, M. Flaxman, T. Goode, T. Maddock III, D. Mouat, R. Peiser and A. Shearer. 2002. Alternative futures for changing landscapes. Presentation at the Third International Partners in Flight Conference, Monterey, CA. 3/22/2002.
- Bassett, S. D., T. Goode, T. Maddock III, D. A. Mouat and C. Steinitz. 2001. Applying alternative futures assessments to water use issues in a binational watershed. Presentation at the 2nd International Symposium of Landscape Futures, University of New England, Armidale, Australia. 12/2001.
- Mouat, D. A., A. Shearer and S. D. Bassett. 2001. The role of stakeholder input in designing alternative futures in the context areas of federally managed lands. Presentation at the 2nd International Symposium of Landscape Futures, University of New England, Armidale Australia. 12/2001.
- Mouat, D., S. D. Bassett, B. Anderson, H. Arias, M. Cablk, M. Flaxman, T. Goode, W. Hodge-Rose, B. Lozar, T. Maddock, III, R. Peiser, A. Shearer and C. Steinitz. 2001. Alternative futures for the Upper San Pedro River watershed, Arizona and Sonora. Presentation at the Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC. 11/2001.
- Bassett, S. D., D. A. Mouat, C. Steinitz, M. Flaxman, T. Goode, T. Maddock, III, R. Peiser and A. Shearer. 2001. Alternative futures for the San Pedro River Basin: Complex model interactions. Invited presentation at the Landscape Level Wildlife Habitat Planning and Management in Urban Environment workshop at The Wildlife Society's annual meeting, Reno, Nevada. 09/2001.
- Mouat, D., C. Steinitz, R. Anderson, H. Arias, S. Bassett, M. Cablk, M. Flaxman, T. Goode, R. Lozar, T. Maddock, III, W. Rose, R. Peiser and A. Shearer. 2001. Alternative futures of the San Pedro River watershed, Arizona and Sonora: Politics of landscape change. Presentation at the 16th Annual Symposium of US-IALE, Arizona State University, Tempe, Arizona. 04/2001.
- Steinitz, C., R. Anderson, H. Arias, S. Bassett, M. Cablk, M. Flaxman, T. Goode, R. Lozar, T. Maddock, III, D. Mouat, W. Rose, R. Peiser and A. Shearer. Alternative futures for the upper San Pedro River watershed, Arizona and Sonora: A modeling approach. Presentation at the 16th Annual Symposium of US-IALE, Arizona State University, Tempe, Arizona. 04/2001.
- Bassett, S. D. and Edwards, T. C., Jr. Modeling biodiversity for policy makers: Wilderness designation in Utah. Presentation at the University Consortium for Geographic Information Science Annual Assembly & Summer Retreat, Bar Harbor, Maine, 06/1997.
- Edwards, T. C., Jr., and S. D. Bassett. A spatial analysis of protection afforded land-cover and terrestrial vertebrate diversity in Utah. Poster presented at the Sixth Annual National Gap Analysis Meeting, Key Largo, Florida, 07/1996.
- Bassett, S. D., T. C. Edwards, Jr., and C. G. Homer. Attribute-based aggregation algorithm for generalizing thematic maps. Poster presented at

- the Sixth Annual National Gap Analysis Meeting, Key Largo, Florida, 07/1996.
- Edwards, T. C., Jr., and S. D. Bassett. A spatial analysis of protection afforded land-cover and terrestrial vertebrate diversity in Utah. Poster presented at the Third International Conference on Integrating GIS and Environmental Modelling, Santa Fe, New Mexico, 01/1996.
- Edwards, T. C., Jr., S. D. Bassett, and C. G. Homer. Wilderness designation in Utah: a spatial analysis of protection afforded land-cover and terrestrial vertebrate diversity. Poster presented at the Fifth Annual Gap Analysis Meeting, Fayetteville, Arkansas, 08/1995.
- McCune, M, T. C. Edwards, Jr., S. D. Bassett, and C. G. Homer. The Mojave ecoregion. Poster presented at the Fifth Annual Gap Analysis Meeting, Fayetteville, Arkansas, 08/1995.
- Falconer, A, D. D. Wight, T. C. Edwards, Jr., S. D. Bassett, and C. G. Homer. Issues of GIS: "database thinking" and database structure. Invited presentation at the ACSM/ASPRS Annual Convention, Charlotte, NC, 2/28/1995.
- Bassett, S. D., C. G. Homer, and T. C. Edwards, Jr. Aggregating raster level vegetation data to variable minimum mapping units. Poster presented at the Fourth Annual National Gap Analysis Meeting, Seattle, Washington, 07/1994.
- Falconer, A., T. C. Edwards, Jr., C. G. Homer, S. D. Bassett, and D. Wight. Dissemination of Gap Analysis information to the user: an integrated approach. Poster presented at the Fourth Annual National Gap Analysis Meeting, Seattle, Washington, 07/1994.
- Bassett, S. D., T. C. Edwards, Jr., and C. H. Homer. Gap Analysis: a geographic information systems approach to the spatial inventorying of biodiversity. Poster presented at the 1994 ASPRS/ACSM Annual Meeting, Reno, Nevada, 04/1994.
- Homer, C. H., T. C. Edwards, Jr., S. D. Bassett, C. Crosby, A. Falconer, D. Wight, and R. D. Ramsey. Maps and data for Gap Analysis: the Utah prototype for state reports on biodiversity developed using ERDAS Imagine 8.0.1. Presentation at the ERDAS User's Group Meeting, Atlanta, Georgia, 10/1993.
- Homer, C. G., S. D. Bassett, T. C. Edwards, Jr., G. Crosby, D. Wight, R. D. Ramsey, and A. Falconer. Prototype maps for the U.S. Fish and Wildlife national gap analysis project. Poster presented at the ERDAS User's Group Meeting, Atlanta, Georgia, 10/1993.
- Research Reports**
- Bassett, S. 2009. Urban growth modeling and framework design in support of the futures assessment at the range-complex level Southwest United States. Marine Corps Installations West and Desert Research Institute, 14pp.
- Bassett, S., E. J. Trammell, and D. Sada. 2007. Assessment of stream ecosystem modeling methodologies within the McCarran reach section of the Lower Truckee River. U.S. Army Corps of Engineers, ERDC. 8pp.
- Bassett, S., E. J. Trammell, C. Rosamond, and D. Sada. 2007. Demonstrating innovative river restoration assessment technologies: Lower Truckee River habitat modeling. U.S. Army Corps of Engineers, ERDC. 6pp.
- Bassett, S. and E. J. Trammell. 2007. Identifying land use/land cover trends for the Northern Rivers Region of New South Wales. Armidale, NSW: University of New England. 15pp.
- Minor, T., S. Bassett, C. Kratt, and J. Trammell. 2006. GIS study of irrigated lands in the Walker River Basin. Great Basin Land and Water (GBLW). 31pp.
- Lamorey, G. L., S. Bassett, R. Schumer, D. Boyle, G. Pohll, and J. Chapman. 2006. Development and testing of a groundwater management model for the SHOAL Site. The Nevada Site Office, National Nuclear Security Administration. U.S. DoE. 27pp.
- McDonald, E. V., S. N. Bacon, and S. D. Bassett. 2006. Global Physiographic and Climatic Maps to Support Army Regulation (AR) 70-38. A report given to U. S. Army Yuma Proving Ground, Natural Environments Test Office. 50pp.
- Bassett, S., D. Downie, D. Mouat, J. Lancaster, T. York, and the MS TWG. 2005. Management Systems for the Tahoe Basin: A report produced for consideration by the Pathway 2007 steering team. 22pp.
- Boyle, D. P., G. Lamorey, S. Bassett, G. Pohll, and J. Chapman. 2005. Development and testing of a groundwater management model for the faultless underground nuclear test, Central Nevada Test Area. 33pp.
- Bassett, S., D. Mouat, and K. Asay. 2004. Biorecovery monitoring plan. Baku-Tbilisi-Ceyhan (BTC) Pipeline-Azerbaijan Section group. 20pp.
- Bassett, S., D. Mouat, and B. Roddie. 2004. Integrated environmental monitoring programme design document. AIOC. 16pp.
- Bassett, S., D. Sada, and D. Mouat. 2004. Importance of Camp Pendleton habitats to Stephens kangaroo rat, Pacific pocket mouse,

- Southwestern arroyo toad and vernal pool conservation and recovery. MCB Camp Pendleton. 12pp.
- Brock, J., S. Benner, D. Sada, S. Bassett, J. Trammell, C. Shope, J. Memmott, and C. Rosamond. 2004. Demonstrating innovative river restoration assessment technologies: McCarran Ranch, Truckee River, Nevada. USACE-ERDC. 26pp.
- Hitchcock, J. T. Packard, S. Bassett, and B. King. Scenic quality task summary for the Tahoe Basin. TRPA. 10pp.
- Mouat, D., A. Gertler, S. Bassett, and J. Koracin. 2004. An assessment of alternative futures on air quality attainment issues in southwest California – air quality. MCB Camp Pendleton. 32pp.
- Shearer, A., D. Mouat, S. Bassett, M. Binford, C. Johnson, and J. Saarinen. 2004. Four scenarios and associated environmental consequences for the region of MCB Camp Pendleton & MCAS Miramar, California. MCB Camp Pendleton. 416 pp.
- Warren, S. and S. Bassett. 2004. Landscape dynamics and ecology. Pages 12-16 in Desert Surficial Process and Landscape Dynamics on Military Lands: Scientific Advances, New Challenges, and Technology Transfer, Final Report. R. Harmon and E. McDonald, Eds.
- Steinitz, C., R. Anderson, H. Arias, S. Bassett, M. Flaxman, T. Goode, T. Maddock, III, D. Mouat, R. Peiser and A. Shearer. 2004. Alternative Futures for Landscapes in the Upper San Pedro River Basin of Arizona and Sonora. USDA Forest Service General Technical Report, PSW-GTR-191.
- Steinitz, C., T. Canfield, M. Flaxman, K. Freemark, S. Bassett, P. Brodie, J. Choi, R. Herbert, B. Johnson, D. Mendelson, E. Oliver, G. R. Singh, S. Soneji, C. Torres, J. Young, J. Xia, E. Buhmann, S. Shannon, S. Adloff, D. Borner, M. Heger, D. Heide, M. Jahne, R. Krug, J. Schmitz, R. Wagner, P. Weiss, A. Winkelmann. 1999. Alternative Futures for the Gartenreich Dessau-Worlitz, Germany.
<http://www.gsd.harvard.edu/~worlitz/index.html>
- Toth, R. E., J. K. Nicholson, S. Bassett, G. Bentrup, D. Boyden, M. Boyden, J. Maslyn, P. Morgan, T. Newell, J. Powell, L. Purser, T. Tibbetts and M. Van der Zalm. 1997. San Rafael Region Futures Project. Department of Landscape Architecture and Environmental Planning, Utah State University, Logan, Utah.
- Edwards, T. C., Jr., C. G. Homer, S. D. Bassett, A. Falconer, R. D. Ramsey, and D. W. Wight. 1995. Utah Gap Analysis: an environmental information system. Technical report 95-1, Utah Cooperative Fish and Wildlife Research Unit, Utah State University, Logan, Utah. 1138pp + 2 CD-ROMs.
- Edwards, T. C., Jr., C. G. Homer, and S. D. Bassett. 1994. Land management categorization: a user's guide. A Handbook for Gap Analysis, USDI National Biological Survey, University of Idaho, Moscow.

FUNDING

Current:

Project: Land Withdrawals in Nevada: A Mapping Review

(Bassett, PI; Berry, Co-PI)

Location: Nevada

Source: State of Nevada Commission on Mineral Resources

Total Amount: \$33,180

Period: 06/10-05/11

Project: Nevada Water Resources Data, Modeling, and Visualization (DMV)

(Bassett, PI; Patil, Co-PI)

Location: Nevada

Source: Bureau of Reclamation

Total Amount: \$25,000

Period: 04/10-06/11

Project: Effects of Climate Change on Spring Ecosystem Hydroecology

(Sharpe, PI; Bassett, Co-PI; Sada, Co-PI, Mensing, Co-PI; Thomas, Co-PI)

Location: Southern Nevada

Source: NSF EPSCoR

Total Amount: \$200,000

Period: 10/09-09/11

Project: Nevada Infrastructure for Climate Change Science, Education, and Outreach

(Dana, PI; Lancaster, Co-PI; Piechota, Co-PI, Mensing, Co-PI, Bassett, Co-I, and many others)

Location: Nevada, USA

Source: NSF EPSCoR

Total Amount: \$15,000,000

Period: 10/08-9/13

Project: Exploring Planetary Surfaces: Earth, Moon, and Mars

(Calvin, PI; Harris, Co-PI; Lancaster, Co-PI; Bassett, Co-I; Sun, Co-I, Buck, Co-I, Steinberg, Co-I)

Location: Mojave Desert, USA and Mars

Source: NASA EPSCoR

Total Amount: \$750,000

Period: 12/07-08/10

Project: Alternative Futures at the Range Complex Level: Southwest United States—Phase 2 (Bassett, PI)
Location: Desert Southwest
Source: DOD
Total Amount: \$125,000
Period: 10/07-07/10

Project: Alternative Futures at the Range Complex Level: Southwest United States—Phase 1 (Bassett, PI)
Location: Desert Southwest
Source: DOD
Total Amount: \$137,000
Period: 10/07-07/10

Project: Development of a Decision Support Tool in Support of Water right Acquisitions in the Walker River Basin (Bassett, PI)
Location: Walker River Basin, NV, USA
Source: BOR
Total Amount: \$67,012
Period: 10/07-09/11

Pending:

Project: Analysis of Water resources Futures within Southern California's Inland Empire (Thomas, PI; Bassett, Co-PI; Boyle, Co-PI; Mouat, Co-PI)
Location: Southern California
Source: Bureau of Reclamation
Total Amount: \$167,000
Period: pending

Past:

Project: MSHCP Science Advisor Team (Bassett, PI ;Sada, Co-PI; Stone, Co-PI; Lancaster, Co-PI; Mouat, Co-PI; Burke, Co-I; MacCabe, Co-I)
Location: Clark County, Nevada
Source: Clark County Desert Conservation Program
Total Amount: \$1,532,000
Period: 06/07-06/09

Project: Integrated Desert Terrain Forecasting for Military Operations, Phase 2 (McDonald, PI; Bassett, Co-I; Bullard, Co-I; Minor, Co-I; Boyle, Co-I)
Location: Desert Terrains Worldwide
Source: U.S. Army Research Office
Total Amount: \$2,800,000
Period: 09/04-08/09

Project: Range Sustainment: Alternative Futures at the Range-complex Level Southwest United States (Mouat, P.I.;Bassett, Co-P.I.;Shearer, Co-P.I.)
Location: Southwest United States
Source: U.S. Marine Corps
Total Amount: \$410,957
Period: 08/06-08/08

Project: Development of a Water Rights GIS Database of the Walker River Basin (Minor, PI ;Bassett, Co-PI; Lancaster, Co-I; Burke, Co-I; Kratt, Co-I)
Location: Walker River Basin, Nevada
Source: Bureau of Reclamation via UNR
Total Amount: \$911,565
Period: 05/07-10/08

Project: Identify and Quantify Return Flows to the Truckee River and Improve Existing Reclamation DSS (Boyle, PI; Bassett, Co-PI, Pohll, Co-PI, Lamorey, Co-PI)
Location: Nevada
Source: U.S. Bureau of Reclamation
Total Amount: \$221,912
Period: 09/05-05/08

Project: Perform Streamflow Forecast Study to Provide Operation Guidance to Reclamation Forecasters (Boyle, PI; Bassett, Co-PI, Pohll, Co-PI, Lamorey, Co-PI)
Location: Nevada
Source: U.S. Bureau of Reclamation
Total Amount: \$133,740
Period: 09/05-05/08

Project: Data Fusion for the UFDP Project (Bassett, PI; Boyle, Co-PI)
Location: Nevada
Source: U.S. Army Corps of Engineers
Total Amount: \$46,996
Period: 09/05-09/07

Project: Assessment of Stream Ecosystem Modeling Methodologies within the McCarran Reach Section of the Lower Truckee River (Bassett, PI; Sada, Co-PI)
Location: Nevada
Source: U.S. Army Corps of Engineers
Total Amount: \$131,618
Period: 09/05-09/07

Project: Integrated Desert Terrain Forecasting for Military Operations

(McDonald, PI; Gillespie, Co-PI; Amit, Co-PI; Enzel, Co-PI; Bassett, Co-I; Bullard, Co-I; Minor, Co-I; Young, Co-I)

Location: Israel, California, and Nevada

Source: U.S. Army Research Office

Total Amount: \$2,774,322

Period: 09/03-08/08

Project: Change Analysis of Far North Coast NSW (Bassett, PI)

Location: Gold Coast, Australia

Source: University of New England

Total Amount: \$18,000

Period: 11/05-11/06

Project: Development and Testing of a Groundwater Management Model for the Project Shoal Area

(Boyle, PI; Lamorey, Co-PI; Bassett, Co-PI; Pohll, Co-PI, Chapman, Co-I)

Location: Nevada

Source: U.S. Department of Energy

Total Amount: \$250,000

Period: 09/05-08/06

Project: Designing a Lake Tahoe Management System

(Bassett, PI; Mouat, Co-PI; Lancaster Co-PI)

Location: Lake Tahoe Basin

Source: Tahoe Regional Planning Agency

Total Amount: \$50,000

Period: 08/04-12/05

Project: Development and Testing of a Groundwater Management Model for the Faultless Underground Nuclear Test, Central Nevada Test Area

(Boyle, PI; Lamorey, Co-PI; Bassett, Co-PI; Pohll, Co-PI, Chapman, Co-I)

Location: Nevada

Source: U.S. Department of Energy

Total Amount: \$255,000

Period: 09/04-08/05

Project: Azeri Project: Integrated Environmental Monitoring Programme – terrestrial issues

(Bassett, PI; Mouat, Co-PI)

Location: Azerbaijan

Source: British Petroleum

Total Amount: \$80,300

Period: 12/05-05/07

Project: Data Fusion for the Urban Flooding Demonstration Program

(Bassett, PI; Boyle, Co-PI).

Location: Western U.S.

Source: U.S. Army Corps of Engineers

Total Amount: \$64,000

Period: 09/03-06/04

Project: Las Vegas Wash QPF

(Boyle, PI; Bassett, Co-I)

Location: Nevada

Source: U.S. Army Corps of Engineers

Total Amount: \$71,000

Period: 09/03-06/04

Project: Placing Scenic Resources in an Adaptive Management Framework for Lake Tahoe

(Tracy, PI; Bassett, Co-I)

Location: Nevada and California

Source: Tahoe Regional Planning Agency

Total Amount: \$70,000

Period: 09/03-05/04

Project: BTC Pipeline Project: Vegetation Reinstatement Along the Pipeline Corridor

(Mouat, PI; Bassett, Co-PI)

Location: Azerbaijan

Source: British Petroleum

Total Amount: \$90,300

Period: 05/04-06/05

REFERENCES

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