CURRICULUM VITA: JOEL R. HAMILTON

October 31, 2011

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PRESENT POSITION:

Professor Emeritus of Agricultural Economics and Statistics at the University of Idaho since June 2002 (Assistant Prof. 1970-74, Associate Prof. 1974-82, Professor 1982-02).

PRIMARY FIELDS OF INTEREST:

Land, water, and energy resource economics.

Economics of endangered species recovery.

Regional economic aspects of rural communities.

Methods for resource conflict management and resolution

EDUCATION:

Univ. of Wisconsin (Madison), B.S. Agricultural Economics, 1966 Univ. of California (Berkeley), Ph.D. Agricultural Economics, 1971

OTHER PROFESSIONAL EXPERIENCE:

Director, UI Martin Institute for Peace Studies & and Conflict Resolution. Develop, implement and coordinate interdisciplinary programs in peace studies and conflict resolution. Institute mission is to develop teaching, research and service programs which promote peace and resolve conflicts at all levels, ranging from interpersonal to international. Half time Nov 1990 - June 1994.

Visiting Professor, Univ. of Wyoming Visiting Scholar Program, taught 1-credit short course "Economics and the Endangered Species Act", with Norm Whittlesey, May 1994.

MAJOR INTERNATIONAL EXPERIENCE:

- 2008 Participant in the NSF-funded workshop under the Pan American Advanced Study Institute, "Human, Physical, and Natural Capital Investment in Patagonia: A Predictive Approach under the Sustainability Criterion", Santiago, Chile, August, 2008.
- 2004-06, Uzbekistan Water Management, Irrigation and Land Reclamation Implementation Study, Funded by US Trade and Development Agency through Lemna International in cooperation with Uzbekistan Ministry of Agriculture and Water Resources, April 2004 - 06. With Walter Butcher.
- 2003, Instructor for 18-hour workshop on water economics modeling, State Department funded project through Washington State University International Programs Office, Tashkent, Uzbekistan, November - December 2003.
- 2003, Instructor in one-week water economics workshop, USAID funded project through Washington State University International Programs Office, Amman, Jordan, January 2003.
- 1996, Visiting Econometrics Instructor, Winrock Lead 21 PhD Program, China Agricultural University, Beijing, Sep Dec 1996.
- 1990, Two months in Sri Lanka. Postharvest Institute for Perishables subcontract with Development Alternatives Inc. and USAID. Assessment of postharvest needs for fruits and vegetables.
- 1988, Three weeks in China. Consulted with faculty at Bejing Agricultural University on research topics.

 Consulted with faculty and presented series of six Lectures on water resources research methodology and econometric procedures at Northwest Agr. University, YangLing, Shaanxi.

Consulted with faculty and presented seminar on water resources topics at South China Agricultural

University, Guangzhou.

1984-89, Member of the Design and Implementation Teams for the Pakistan Irrigation System Management Project funded by USAID. Spent 8 weeks during 2 trips in 1984 consulting with government agency and university personnel regarding irrigation research needs and capabilities in Pakistan. Spent 5 weeks in 1986 consulting with Pakistan government agency personnel beginning the implementation of the ISM project. Spent 6 weeks in 1987 teaching a shortcourse in Lahore, Pakistan, for senior irrigation researchers on computer use, statistical methods, data management and project evaluation. Spent 5 weeks in 1988 helping the Water and Power Development Authority set up a database for analysis of irrigation research results.

1979, Research Fellow, Economics Department, University of Queensland, Brisbane, Australia.

Responsibilities included some teaching in Regional and Urban Economics, research in the economic problems of small towns and research in input-output methodology. (Sabbatical leave

from the University of Idaho).

MAJOR CONSULTING ACTIVITIES:

- 2010 to present, Research and expert witness for a water lawsuit Kansas v Nebraska (Republican River) in the US Supreme Court. Retained by State of Kansas through Montgomery and Andrews. (Preparation for hearing before special master.)
- 1997 to present, Independent Economic Analysis Board of the NW Power Planning Council (time compensated by NWPPC as consulting), chair 1998 2000.
- 2004 to 2006, Research and expert witness for springwater and surface water users in water rights dispute with Snake River Aquifer groundwater users, in administrative hearings with Idaho Department of Water Resources
- 2004-06, Uzbekistan Water Management, Irrigation and Land Reclamation Implementation Study, Funded by US Trade and Development Agency through Lemna International in cooperation with Uzbekistan Ministry of Agriculture and Water Resources, With Walter Butcher.
- 2006 to 2007, Modeling effects of climate change on southern Idaho irrigation water supplies. Project funded by the National Commission on Energy Policy. With Garth Taylor and Russell Qualls.
- 2006 Research and report preparation for the Public Power Council in study of economic impacts of higher electricity rates to other customers if BPA grants below cost rates to the direct service industries. With Hank Robison of Economic Modeling Specialists, Inc.
- 2002 to 2006, Research and expert witness for the US Department of Justice in a historic Indian claims case involving Isleta Pueblo (NM) before the US Court of Claims.
- 2002 to 2007, Research with Idaho Department of Water Resources to develop models of water allocation and surface-groundwater interaction for the Boise River Basin.
- 1997 to 2000, Research and expert witness for a water lawsuit Kansas v Colorado (Arkansas River) in the US Supreme Court. Retained by State of Kansas through Montgomery and Andrews. (Hearing before special master.)
- 1987 to 1993, Research and expert witness for a water lawsuit Texas v New Mexico(Pecos River) in the US Supreme Court. Retained by State of New Mexico through Clearwater Consulting. (Hearing before special master.)
- 1982 to 1991, Research and expert witness before US Court of Claims for US Justice Department on historic Indian water right damage cases concerning Fort Hall (Idaho), Fort Apache (Arizona), Walker River (Nevada) and Gila River (Arizona) Indian Reservations. (Fort Apache case went to trial, other cases settled without trial.)
- 1986 to 1989, Expert witness in lawsuit on bond default by Washington Public Power Supply System. Retained by Bernstein, Litowitz, Berger & Grossman, New York. (Settled during trial prior to scheduled appearance.)

PROFESSIONAL COMMITTEE ACTIVITIES:

Independent Economic Analysis Board, NW Power Planning Council, 1997-present, Chair 1998-2000. US Bureau of Reclamation, Snake River Resources Review, Economics Technical Workgroup, 1997-1999. Advisory Board for UI Martin Institute for Peace Studies and Conflict Resolution, 1996-00, 2004-present. Central Region Trans-boundary Initiative for Collaborative Problem-Solving, 1992-1999. College of Forestry Policy Analysis Group, Faculty Advisory Board, 1997-2002 University Task Force on Salmon and the Columbia River System, UI coordinator, 1991-96. National Marine Fisheries Service Endangered Salmon Economics Technical Committee, 1991-96. W-178, "Water Management and Conservation in Western Irrigated Agriculture", 1974-2002 Council for Agricultural Science and Technology Task Force on the Future of Irrigated Agr., 1993-96. Environmental Mgt. Site Specific Advisory Board, Idaho National Engineering Laboratory, DOE, 1994-97. City of Moscow, Planning and Zoning Commission, 1981-present. City of Moscow, Transportation Commission, 2007 - present.

HONORS:

University of Idaho College of Agriculture Gamma Sigma Delta Outstanding Research Award, 2001. Golden Quill Award for outstanding Journal article in 2007 by the American Society of farm Management and Rural appraisers

SELECTED PUBLICATIONS:

- Slaughter, R., A.F. Hamlet, D. Huppert, J. Hamilton, and P.W. Mote, "Mandates vs. Markets: Addressing Over-Allocation of Pacific Northwest River Basins", <u>Water Policy</u>, Volume 12 Number 3, 2010.
- Taylor, G, B. Contor, J. Hamilton, The ABCs of Apples, Bees, and Connections Hydrologic, Choices, 25(3), 2010.
- Willis, D.B., J.R. Hamilton, M.H. Robison, N.K. Whittlesey, and J.B. Draper, "Secondary Damages in Interstate Water Compact Litigation". <u>Natural Resources Journal</u>, Summer 2008.
- Beasley, A, J.Nelson, R. Stroschein, and J. Hamilton, "Determinants of Farmland Values In the Rapidly Developing Boise, Idaho Metro Area: Applying Mathematical Modeling to Highest and Best Use Analysis" Journal of the American Society of Farm Managers and Rural Appraisers, 2007.
- Huffaker, R., J. Hamilton, "Conflict", chapter in <u>Irrigation of Agricultural Crops</u>, 2nd ed., American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Agronomy Monograph #30, 2007.
- Hamilton, J.R. and R.G. Taylor, "Brownouts in California, Brown Fields in Idaho", Choices, Winter 2001-02.
- Hamilton, J.R., Whittlesey, N.K., Robison, M.H. and Willis, D., "Measuring Direct and Indirect Costs of Land Retirement in An Irrigated River Basin: a Budgeting-Regional Multiplier Approach," <u>Water Resources Research</u>, Vol 38(2002).
- Hamilton, J.R., "Effect of Climate Change and Variability on Irrigation Water Supply," <u>Decision Support Systems for Water Resources Management</u>, proceedings of AWRA / UCOWR Specialty Conference, Snow Bird, UT, June 27-30, 2001.
- Huffaker, R, A. Michelsen, J.R. Hamilton, and Marshall Frasier, "The Uneasy Hierarchy of Federal and State Water Laws and Policies," <u>Water Resources Update</u>, Number 118, January 2001
- Green, G.P., J.R. Hamilton, "Water Allocation, Transfers, and Conservation: Links between Policy and Hydrology," <u>Water Resources Development</u>, June 2000.
- Huffaker, R., N.K. Whittlesey, and J.R. Hamilton, "The Role of Prior Appropriation in Allocating Water Resources into the 21st Century," <u>Water Resources Development</u>, June 2000.

- Huffaker, R., W.M. Fraser, and J.R. Hamilton, "The 'Interstate-Trade-Restriction' Defense in Commerceclause Challenges of State-imposed Restrictions on Water Exports to Neighboring States," <u>Water</u> <u>Resources Development</u>, June 2000.
- Hamilton, J.R., G.P. Green, and D. Holland, "Modeling the Reallocation of Snake River Water for Endangered Species," <u>American Journal of Agricultural Economics</u>, August 2000.
- Hamilton, J.R., "Economics of Removing Dams from the Lower Snake River," Presented to the International Water Resources Economics Consortium Kailua, Hawaii, June 29, 1999. (Available on web at http://www.uidaho.edu/~joelh/pubs/FishNumbers.htm).
- Huffaker, R., W.M. Fraser, and J.R. Hamilton, "The Interstate Trade Restriction Defense in Commerce-Clause Challenges of State-Imposed Restrictions on Water Exported to Neighboring States," Presented to the International Water Resources Economics Consortium Kailua, Hawaii, June 29, 1999.
- Huppert, D., J. Hamilton, K. Boire, K. Casavant, L. Peters, J. Richards, A. Scott, P. Sorensen, "River Economics: Evaluating Trade-offs in Columbia River Basin Fish and Wildlife Programs and Policies," Publication IEAB 99-1 of the Independent Economic Analysis Board of the Northwest Power Planning Council, Portland, February, 1999. (Available on web at http://www.nwppc.org/ieab 99-1.htm)
- Willis, B.B., J. Caldas, W.M. Fraser, N.K. Whittlesey, and J.R. Hamilton, "The Effects of Water Rights and Irrigation Technology on Streamflow Augmentation Cost in the Snake River Basin," <u>Journal of Agricultural and Resource Economics</u>, July 1998.
- Hamilton, J.R., Role of Economics in Endangered Species Policy, Annual Meeting of Universities Council on Water Resources, Hood River, Oregon, August 6, 1998. (Available on web at http://www.uidaho.edu/~joelh/pubs/HoodRiver.htm)
- Hamilton, J.R., "Political Economy of Pacific Northwest Salmon," <u>Electronic Green Journal</u>, April 1998. (Journal located on web at http://www.lib.uidaho.edu:70/docs/egj09/hamil1.html)
- Hamilton, J.R., and N. K. Whittlesey, "Cost of Using Water from the Snake River Basin to Augment Flows for Endangered Salmon", Western Regional Science Association Annual Meetings, Napa, California, February, 1996 (Available on Web at http://www.uidaho.edu/~joelh/pubs/CostOfWater/nmfs.html).
- Kahlown, M.A., and J.R. Hamilton, "Review of Sailaba Irrigation Practices and Prospects," <u>Arid Soil Research and Rehabilitation</u>, Vol.10, No.2, 1996.
- Vaux, H.J. (editor), <u>Future of Irrigated Agriculture</u>, <u>Council for Agricultural Science and Technology</u>, Ames, Iowa, August 1996.
- Hamilton, J.R., B. Colby, and R. Supalla, "Resolution of Water-Related Conflicts," panel presentation to W-190 regional research committee annual meeting, Ft. Collins, Colorado, October 1995.
- Kahlown, M.A., and J.R. Hamilton, "Status and Prospects of Karez Irrigation," <u>Water Resources Bulletin</u>, Vol.30, No.1, February 1994.
- Hamilton, J.R., M.H. Robison, N.K. Whittlesey, and J. Ellis, "The Importance of Interregional Spillovers in Regional Impact Assessment: New Mexico, Texas, and the Supreme Court," <u>Growth and Change</u>, Vol.25, No.1, Winter 1994.
- Whittlesey, N.K., D. Bernardo, J.R. Hamilton and R. Adams, "Irrigation Management Under Drought Conditions", chapter in <u>Management of Water Use in Agriculture</u>, by K.K. Tanji and B. Yaron, Advanced Studies in Agricultural Sciences, Vol.22, Springer-Verlag, Heidelberg, 1994.
- Hamilton, J.R., "Water and Conflict: A Middle East Water Dialogue," <u>Martin Institute News</u>, Vol.4, No.2, UI Martin Institute for Peace Studies & Conflict Resolution, August 1994.
- Hamilton, J.R., "Water and Conflict in the Middle East," <u>Martin Institute News</u>, Vol.4, No.1, UI Martin Institute for Peace Studies & Conflict Resolution, February 1994.
- Hamilton, J.R., "An Inventory of Conflict Resolution Activities in Idaho", chapter in <u>The Transboundary Initiative: Inventory of Activities</u>, distributed by National Institute for Dispute Resolution, Washington D.C. and The Network, Waterloo, Ontario, October 1993.

- Walker, D., B. Calkins and J. Hamilton, "Marginal Cost Effectiveness Analysis for Agricultural Nonpoint Source Water Quality Control", <u>Journal of Soil and Water Conservation</u>, Vol 48, No. 4, July-August 1993.
- Robison, M.H., J.R. Hamilton, K.P. Connaughton, N. Meyer, and R. Coupal, "Spatial Diffusion of Economic Impacts and Development Benefits in Hierarchically Structured Trade Regions: An Empirical Application of Central Place- Based Input-Output Analysis," Review of Regional Studies, Vol.3, No. 3, 1993.
- Peterson, S., J.R. Hamilton, and N.K. Whittlesey, "What Role can Idaho Water Play in Salmon Recovery Efforts?," PNW Extension Bulletin # 462, December 1993.
- Martin, M., J. Hamilton and K. Casavant, "Implications of a Drawdown of the Snake-Columbia River on Barge Transportation", <u>Water Resources Bulletin</u>, August 1992.
- Hamilton, J., N. Whittlesey, H. Robison and J. Ellis, "Economic Impacts, Value Added and Benefits in Regional Project Analysis", American Journal of Agricultural Economics, May 1991.
- Hamilton, J., N. Whittlesey and P. Halverson, "Interruptible Water Markets in the Pacific Northwest", American Journal of Agricultural Economics, February 1989.
- Walker, D., P. Patterson and J. Hamilton, "Costs and Benefits of Improving Irrigation Return Flow Water Quality in the Rock Creek, Idaho, Rural Clean Water Project," Agr Experiment Station Research Bulletin #139, Univ of Idaho, Moscow, 1986.
- Hamilton, J. and N. Whittlesey, "Competition Between Irrigation and Alternative Uses of Water", chapter in book: N. Whittlesey, ed., Energy in Western Agriculture, Westview Press, 1986.
- Hamilton, J. and R. Gardner, "Value Added and Secondary Benefits in Regional Project Evaluation: Irrigation Development in the Snake River Basin", The Annals of Regional Science, March 1986.
- Calkins, B., D. Walker, E. Michalson and J. Hamilton, "Economic Evaluation of Practices for Reducing Sedimentation under Irrigated Agriculture in Southcentral Idaho," Agr Experiment Station Research Bulletin #133, Univ of Idaho, Moscow, 1985.