JACK SIEBER

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PROFESSIONAL SUMMARY

Mr. Sieber is Deputy Directory and a Senior Scientist for the Stockholm Environment Institute, U.S. Center, where he develops computer-based tools to assist in long-range scenario planning, and works with researchers, policy makers and other stakeholders worldwide to help build a path to a sustainable future. His work focuses on integrated water resources planning at the watershed scale, with a special focus on the potential impacts of climate change. He is the lead software developer of WEAP, the Water Evaluation And Planning system.

EDUCATION

M.S. Computer Science, Yale University, 1988.

B.A. Mathematics and Computer Science, Oberlin College, 1986. Phi Beta Kappa. Sigma Xi. Graduated with high honors.

EXPERIENCE

1991-Present Senior Scientist, Stockholm Environment Institute, U.S. Center. Designed, implemented, documented and trained users for a broad range of decision support systems, including:

- *Water Evaluation and Planning System (WEAP)*: an integrated water resource and river basin planning system, covering all aspects of water demand, supply, networks, wastewater pollution and treatment, hydrology, financial planning, and water quality.
- *PoleStar*: a comprehensive, flexible and easy-to-use software tool for sustainability studies at the local, regional, national, or global level. The software is both a scenario-building tool and a database of current indicators covering social, economic and environmental issues.
- *Long-range Energy Alternatives and Planning System (LEAP)*: a tool for integrated energy-environment and greenhouse gas mitigation analysis used by more than 200 government agencies, NGOs and academic organizations.
- *WastePlan*: an integrated solid waste planning system, covering all aspects of waste generation, collection and processing.
- *Greenhouse Gas Scenario System (G2S2)*: accounting for current and projecting future global greenhouse gas emissions.
- *Greenhouse Gas Inventory System (GGIS)*: developed along with the International Panel on Climate Change (IPCC) and the Organization of Cooperation and Development (OECD), this software inventory tool will serve as the official means for each country to compile and submit their national inventories of greenhouse gas emissions, as mandated in the United Nations Framework Convention on Climate

Change.

- *Beijing Environmental Master Plan Application System (BEMPAS)*: a complete environmental planning system developed for the Beijing Municipal Environmental Protection Bureau, comprising energy, water and solid waste planning systems. Includes GIS interface for the geographical display of energy and water use, and links to EPA-standard models for analyzing air and water pollution dispersion and concentrations.
- *Pollution Prevention Financial Analysis and Cost Evaluation System (P2/FINANCE)*: a tool for comparing costs and benefits of various industrial pollution prevention options.

1990-91 Consultant, Department of Physiology, Yamaguchi Medical School, Ube, Yamaguchi, Japan. In two separate projects, developed and programmed software for metabolic and cardiac analysis, respectively. Included control of lab instruments, and data acquisition and analysis.

SELECTED PUBLICATIONS

2009 David Yates, David Purkey, Jack Sieber, Annette Huber-Lee, Hector Galbraith, Jordan West, Susan Herrod-Julius, Chuck Young, Brian Joyce, and Mohammad Rayej, "Climate Driven Water Resources Model of the Sacramento Basin, California," *ASCE Journal of Water Resources Planning and Management*, (2009) 135, pp. 303-313, doi:10.1061/(ASCE)0733-9496(2009)135:5(303), Sep/Oct 2009.

2008 David Yates, Hector Galbraith, David Purkey, Annette Huber-Lee, Jack Sieber, Jordan West, Susan Herrod-Julius and Brian Joyce, "Climate warming, water storage, and Chinook salmon in California's Sacramento Valley," *Climatic Change*, (2008) 91, pp 335-350, doi:10.1007/s10584-008-9427-8, December 2008.

2007 Richard Vogel, Jack Sieber, Stacey Archfield, Mark Smith, Colin Apse, and Annette Huber-Lee, "Relations Among Storage, Yield and Instream Flow," *Water Resources Research*, 43 (2007), W05403, doi:10.1029/2006WR005226.

2005 David Yates, Jack Sieber, David R. Purkey and Annette Huber-Lee, "WEAP21--A Demand-, Priority-, and Preference-Driven Water Planning Model: Part 1, Model Characteristics," *Water International*, 30 (2005), pp. 487-500.

2005 David Yates, David R. Purkey, Jack Sieber, Annette Huber-Lee and Hector Galbraith, "WEAP21--A Demand-, Priority-, and Preference-Driven Water Planning Model: Part 2, Aiding Freshwater Ecosystem Service Evaluation," *Water International*, 30 (2005), pp. 501-512.

2004 Huber-Lee, A., D. Purkey, J. Sieber, C. Swartz and C. Young. "Sustainable Water Supply Planning for Three US Cities: Contrasts in Climates and Stakeholder Issues." Paper presented at the Stockholm Water Symposium, August 2004.