

IRIS STEWART-FREY  
*Curriculum Vitae*

**Assistant Professor**

Environmental Studies Institute  
Santa Clara University  
Santa Clara, CA 95053-0563

*contact:*

408.551.7186 (o)  
408.554.2312 (fax)  
IStewartFrey@scu.edu

**EDUCATION**

**2001 PhD Hydrogeology**

Department of Geological and Environmental Sciences, Stanford  
University

Thesis title: Development of a Type Transfer Function Approach for  
Modeling Non-Point-Source Pesticide Leaching at the Regional Scale

**1994 BSc Geology and Geophysics**

School of Ocean and Earth Science and Technology, University of Hawaii

**FELLOWSHIPS, HONORS, AND AWARDS**

09/07- present Clare Booth Luce Professorship  
12/00-12/03 NOAA/UCAR Postdoctoral (Visiting Scientist) Research  
Fellowship  
09/98-09/00 EPA STAR Doctoral Student Fellowship  
09/98-09/99 Theresa Heinz Fellowship for Environmental Research  
09/96-09/97 National Science Foundation Doctoral Student Fellowship  
(awarded 09/96-09/99)  
09/93-09/96 Society of Exploration Geophysicists Student Fellowship

**PROFESSIONAL AND RESEARCH EXPERIENCE**

09/06-present ASSISTANT PROFESSOR, Environmental Studies Institute,  
Santa Clara University, Santa Clara, CA  
12/04–05/06 SCIENTIST (INDEPENDENT CONTRACTOR), U.S.  
Geological Survey, Water Resources Division, Menlo Park,  
CA.

03/05–06/05	ADJUNCT PROFESSOR, Department of Civil Engineering, Santa Clara University, Santa Clara, CA.
07/02–06/03	COURSE DIRECTOR, International Ph.D. Program ENWAT, Universitaet Stuttgart, Department of Civil and Environmental Engineering, Germany.
12/00–07/04	POSTDOCTORAL RESEARCHER and NOAA VISITING SCIENTIST, Scripps Institution of Oceanography, Climate Research Division, La Jolla, CA.
10/94–11/00	RESEARCH AND TEACHING ASSISTANT, Stanford University, Stanford, CA.

## PUBLICATIONS

- Peterson DH, **Stewart IT**, Murphy F. 2008. Principal hydrologic responses to climatic and geologic variability in the Sierra Nevada, California. *Estuary and Watershed Science*, Vol.6, Issue 1 (February 2008), Article 1113.
- Maurer EP, **Stewart IT**, Bonfils C, Duffy PB, Cayan DR, 2007. Detection, attribution, and sensitivity of trends towards earlier streamflow in the Sierra Nevada, *J. Geophys. Res.*, 112, D11118, doi:10.1029/2006JD008088.
- Cayan DR, Dettinger MD, **Stewart IT**, Knowles N, 2005. Recent changes toward earlier springs – Early sings of climate warming in western North America: *Watershed Management Council Newsletter*, Spring 2005, 13 p.
- Peterson DH, Smith R, **Stewart IT**, Knowles N, Soulard C, Hager S, 2005. Snowmelt discharge characteristics, Sierra Nevada, California. *USGS Scientific Investigations Report 2005-5056*, <http://pubs.water.usgs.gov/sir2005-5056/>.
- Stewart IT**, Cayan DR, Dettinger MD, 2005. Changes towards earlier streamflow timing across western North America, *J. Climate*, 18, 1136-1155.
- Stewart IT**, Loague K, 2004. Assessing groundwater vulnerability in the San Joaquin Valley (CA) with the type transfer function model, *J. Environm. Qual.*, 33:1487-1498.
- Stewart IT**, Cayan DR, Dettinger MD, 2004. Changes in snowmelt runoff timing in western North America under a ‘Business as Usual’ climate change scenario, *Climatic Change*, 62:217-232.

**Stewart IT.**, Loague K, 2003. Development of type transfer functions for regional-scale non-point-source groundwater vulnerability assessments, *Water Resour. Res.*, 39(12):1359.

**Stewart IT**, Loague K, 1999. A type transfer function approach for regional-scale pesticide leaching assessments. *J. Environ. Qual.* 28:378-387.

Loague K, Abrams RH, Davis SN, Nguyen A, **Stewart IT**, 1998. A case study simulation of DBCP groundwater contamination in Fresno County, California. 2. Transport in the saturated subsurface. *J. Contam. Hydrol.* 29:137-163.

### **PROFESSIONAL SOCIETIES**

American Geophysical Union  
American Water Resources Association

### **PROFESSIONAL SERVICES**

Expert witness for AB32 on behalf of the State of California and several environmental organizations  
Reviewer for *Journal of Geophysical Research Letters*, *Water Resources Research*, *Journal of Climate*, *Journal of Environmental Quality*, *Climatic Change*, *Environmental Management*  
Reviewer for the PAN Pesticide Database, Beta Version 3.0