



Spring 2012 ETX Seminar Ecological and Watershed Risk Assessment

Ecological risk assessment, from its inception, has been defined as the analysis of ecological risks due to **chemical, physical, and biological stressors** (US EPA, 1996). In practice, it has primarily focused on chemical risk assessment at particular sites. When examining the causes of impairment in the aquatic environment, a localized, chemically-focused analysis helps clarify risk issues at specific sites (point sources), but a more integrated approach is needed to understand non-points sources, such as urbanization and agriculture. Watershed risk assessment (WRA) takes into account the range of stressors originally identified by the EPA at the landscape scale. This seminar will focus primarily on the scientific, but also the social and political context, in which WRAs are performed. Speakers representing a wide diversity of fields will provide an overview of their discipline and present case studies as appropriate. All are invited to attend.

Tentative Schedule of Seminars (dates and titles of seminars not finalized)

Week & Date	Name	Topic to be addressed
1 – 4/4	<i>Special Kick-off Speaker:</i> Margaret Palmer, Executive Director, National Socio-Environmental Synthesis Center, U. Maryland	Trans-disciplinary research, actionable science, and watershed risk assessment
2 – 4/11	Tim Horner, Professor, CSUS	Hydrogeology
3 – 4/18	Chris Bowles, principal, cbec eco- engineering	Hydrogeomorphology
4 – 4/25	Jeff Loux, Director, Land Use and Natural Resources Program, UCD Extension	Land Use and links to the aquatic ecosystem
5 – 5/2	Carson Jeffres, Researcher, UCD Center for Watershed Sciences	Fish ecology and impacts of physical habitat changes on salmonids
6 – 5/9	Fraser Shilling, Researcher, Environmental Science and Policy, UCD	Road Ecology, relationship to aquatic ecosystems
7 – 5/16	TBD	
8 – 5/23	Eric Berntsen, Environmental Scientist, State Water Resources Control Board	Environmental regulations, the state's role in protecting aquatic resources, data needs, and watershed risk assessment
9 – 5/30	Swee Teh, Director, Aquatic Health Program, Dept. of Anatomy, Physiology, & Cell Biology, School Vet Med, UCD	Fish toxicology
10 – 6/6	Barbara Washburn , Lead Scientist, Ecotoxicology Program, Office of Environmental Health Hazard Assmt. Seminar Coordinator	Discussion. Integration of information. Case study-Dry Creek WRA if time permits.

Wednesdays 4:10-5:00PM, 1138 Meyer Hall (Foster Room)

ETX 190/ETX 290 (1 unit credit)

Undergraduate ETX 190 – CRN#73934

Graduate ETX 290 – CRN#74106

All are welcome to attend on a drop-in basis.