Bradley E. Sturgeon Monmouth College Department of Chemistry

I am a chemist/scientist; not a traditional chemist of years past, but one who approaches his work with an interdisciplinary attitude. As a scientist, all good ideas fall inside of my academic boundaries. In my traditional chemistry-related research, I explore enzyme-related science. In particular, I study enzyme generated free radicals and attempt to uncover the role (good and bad) of free radicals in biological systems. Chemistry, in general, has been a discipline that has provided technologies that has enabled civilizations to be non-sustainable. In the recent years chemist have provided technology that have enabled civilizations to be more aware of the need to engage in sustainable practices. As with the fore mentioned free radials, technology has a good and bad side that is not so evident at the time of development. In my traditional role as a chemistry instructor, I focus on foundational principles, the scientific method, and logic. I feel that these skills will allow our graduates to make sustainable decisions/choices and be productive citizens of our world. I introduce "green" or sustainability ideas/concepts whenever possible, although this is done as a secondary part of the educational process; I think I can approve in this area. I direct student-initiated projects dealing with solar panels, LED lighting, rain gardens, rain barrels, native plants, and soft drink design, all of which have "green" underlying concepts. I have an interest in thermal imaging as a means of promoting energy conservation, although I know very little on the topic.

In my traditional role of a faculty committee member, I serve on the Student Affairs committee focusing on recycling, community bikes, zip cars, trayless days in the cafeteria, student organizations, and athletics (yuck!). It is my observation that today's Monmouth College student is clearly aware of the need to engage in sustainable practices, but the conveniences of life are a strong "darkside" preventing them from fully embracing/incorporating these ideas. I do feel that the Monmouth College curriculum provides students with a full arsenal of experiences to make then appreciate the need to engage in sustainable practices, although this is not a major theme within most disciplines.

In my less traditional roles as a faculty member, I am a member of the Monmouth College Educational Garden, I construct rainwater harvesting systems on campus buildings, I speak/teach on the history and science of brewing (mostly beer), I collaborate with my business, art, and computer science colleagues on the Monmouth Coffee Project, and I teach a senior level course on citizenship with a focus on "green initiatives" as they relate to water. Sustainability has been a recent (within the last 2 years) interest.

In addition to these activities, I engage in community activities that promote green or sustainable practices. I am a founding member of the Monmouth Community Garden (city wide), I am a member of local organization called "Green Solutions," and I am on a small business advisory committee for a local organization that assists handicapped adults.

On a more personal note, I chose to leave 2 blocks from campus so that I can walk/ride to my job each day. My 110 year old home now has energy efficient windows, newly installed insulation, and energy efficient appliances. I am a home brewer of beer and wine, a recognized BJCP (Beer Judge Certification Program) judge, I tend a hop yard (as in hops for beer brewing), and I have gardens in 3 separate locations.

It is my goal of attending this workshop to be more aware of how I can proactively insert sustainable practices in to the next generation of citizens.