The Everett Shipyard Site (ESY)
The Everett Shipyard site, in Everett, WA is owned by the Port of Everett. Historic boatbuilding, maintenance and repair activities by Everett Shipyard, Inc. contaminated approximately five acres of uplands and adjacent in-water areas. The Consent Decree and Draft Cleanup Action Plan (DCAP) public comment period ended in December, 2011 with cleanup activities scheduled to begin in 2012. SMoCS partners from the ESY site include the Port of Everett and Ecology.

SMoCS Activities Related to the ESY Site
SMoCS I students will role play as Ecology, the Public, the PLP, and the Scientist/Engineer. Through a series of meetings informed by guest lecturers, a site visit, and selected readings from the R/FS, Consent Decree, and DCAP, the students will agree to the criteria for cleanup of the site and will select a mock cleanup action for ESY.

SMoCS II students will learn how to calculate CSLs, about different cleanup technologies (which they will present to SMoCS I groups), how to conduct a DCA, and how to write technical documents, such as the CAP.

SMoCS III students will propose projects to work on. The emphasis will be on contaminated site cleanups, both historic and current, in Washington State.

The SMoCS Courses
A new series of courses is being offered at Huxley College of the Environment (Huxley), Western Washington University. The courses, titled the Science and Management of Contaminated Sites (SMoCS), commenced in January, 2012 and are scheduled to continue until June, 2013. The three SMoCS courses that make up the series are designed to build knowledge of the contaminated site cleanup process under MTCA in Washington State with an emphasis on how scientific investigations are conducted, use of the technical documents associated with cleanups, the roles of different parties in cleanup decisions, and enhanced professional skills.

These classes were initially offered in 2010 and 2011 as the Research of a MTCA Cleanup Site courses with the Former Scott Paper Mill in Anacortes as the focus. In the 2010 courses, taught by Ruth Sofield, undergraduate Environmental Science students worked with site documents, investigated cleanup technologies, designed and evaluated cleanup action alternatives, and proposed research to be conducted on the site. The students took primary lead in conducting the research, which was completed in late 2010. Six senior projects and five presentations at the National Society of Environmental Toxicology and Chemistry North America conference resulted from this research. The 2011 course was taught by Hilary Wilkinson of Vida Environmental. Both Environmental Science and Environmental Studies undergraduate students were in the class. The Port of Anacortes and Kimberly Clark supported all of these courses through Natural Resource Damages funding, with access to the site, and availability to staff and other resources. Other project partners included the Department of Ecology Toxics Cleanup Program (Ecology TCP), GeoEngineers, and Shannon Point Marine Center.

The 2012 SMoCS offerings build from the successes of the previous courses and on the strengths of Huxley faculty and the students. The course design includes activities that foster interdisciplinary interactions combined with discipline specific knowledge and activities. Other courses at Huxley, such as Contaminant Movement in the Environment (i.e. Fate and Transport), Environmental Toxicology, Aquatic Toxicology, Risk Assessment and The Planet, are used to complement and supplement the SMoCS courses. A brief summary of each SMoCS course follows:

• SMoCS I (Winter 2012) - Composed of Environmental Science, Environmental Studies, and Journalism students. Emphasizes the cleanup process and MTCA, the roles of different parties in cleanup decisions, and professional skills. (1 credit)

• SMoCS II (Winter 2012) - Composed of only Environmental Science students. Emphasizes scientific investigations, and technical documents and decisions associated with the cleanup process. (1 credit)

• SMoCS III (Spring 2012) - Composed of students from SMoCS I and II. Utilizes the knowledge and skills base from these courses to support student-selected group projects related to contaminated sites in Washington State. The students will propose ideas for their projects, but any input on project ideas that will be of benefit to the cleanup community is welcome. Contact ruth.sofield@wwu.edu. (3 credits)

The Everett Shipyard site (ESY) is the focus of SMoCS this year. These courses are supported by an Interagency Agreement with Ecology TCP.
Rebekah Green received her PhD from Cornell University where she combined structural engineering and anthropology to study community vulnerability to earthquakes. With a Fulbright scholarship to Turkey, she documented how residents in Istanbul’s sprawling squatter settlements dealt with frequent and deadly earthquakes. She found the discomfort of adjusting to the Turkish language and culture so fascinating, she stayed a second year. She devoted the year to working with a local non-profit organization teaching earthquake risk and disaster preparedness. Her understanding of residents’ misconceptions and dangerous building practices helped the team develop culturally appropriate teaching tools.

Rebekah returned to the United States, starting a post-doctoral fellowship at Columbia University just as Hurricane Katrina struck the Louisiana coast. She continued to work with communities facing environmental hazards, this time New Orleans residents fighting for a chance to participate in their city’s recovery process.

In 2007, Rebekah finally found her way back to where she grew up, the Pacific Northwest. She became the associate director of the Resilience Institute at Huxley. There she researches community resilience and has had the pleasure of teaching several Huxley courses.

This year Rebekah became the newest advisor for The Planet magazine. She is perpetually surprised by the commitment and camaraderie of Planet’s student reporters, photographers and editors. She enjoys finding opportunities for students to learn in an interdisciplinary environment; the SMoCS series provides Huxley’s newest opportunity for this.

http://www.wwu.edu/huxley/resilience/People/RebekahGreen.shtml

Knowledge of the students in the SMoCS courses starts with our Mission statement: “Huxley College of the Environment addresses today’s environmental issues and prepares tomorrow’s interdisciplinary problem solvers.” The College has two departments: Environmental Sciences and Environmental Studies. The students have different backgrounds and strengths, which are utilized and enhanced by fostering interactions between them. The 2012 SMoCS courses also include students from outside of Huxley.

Environmental Sciences students – Start with a traditional science background with Biology, Chemistry, and Calculus as prerequisites. They conduct lab and field work as part of their curriculum. In Huxley, they can emphasize Environmental Toxicology, Freshwater Ecology, Marine Ecology, and Terrestrial Ecology. In keeping with the hallmarks of Huxley College, the students also take courses from Environmental Studies, such as policy and management courses. They graduate with a BS degree.

Environmental Studies students – Come from diverse disciplinary backgrounds. All are well versed in historical and current human-environment interactions. Some students further their study by completing course sequences in urban planning and sustainable development principles. Others delve deeply into environmental policy and regulatory issues. Still others are in the environmental education track where they develop skills for teaching ecological concepts in formal and public education settings. They graduate with a BA degree.

Journalism students – Bring strong writing and reporting skills from Western’s journalism department. Most specialize in environmental journalism, though a few are visual journalism majors with skills in photography and multimedia. All are accomplished storytellers and excel at digging down through complex community processes to find the compelling human and environmental issues.

Contact us:  
Ruth Sofield: 360-650-2181 ruth.sofield@wwu.edu
Rebekah Green: 360-650-2707 rebekah.green@wwu.edu
SMoCS Webpage
http://faculty.wwu.edu/harperr3/SMoCS.shtml

Ruth Sofield, Col du Tourmalet, France 2011
Ruth Sofield received her PhD in Environmental Science and Engineering from the Colorado School of Mines in 2002. She liked Colorado so much that she stayed another year for a post-doc. Her PhD research focused on marine toxicology, while her post-doc was on fate and transport of radionuclides. She has been a professor in the Environmental Sciences Department at Huxley since 2003, where she teaches toxicology, toxicology, toxicology, fate and transport, and SMoCS, SMoCS, SMoCS!

In the 2010 – 2011 academic year she was on a much welcomed sabbatical at the Swiss Federal Institute of Aquatic Science and Technology (Eawag) near Zurich, CH. Although her research on Ag nanoparticle toxicity, and fate and transport was fairly consuming of her time, she was still able to enjoy amazing Swiss cheeses, a public transportation system that can’t be beat, and bicycle adventures with her husband, Darrell Sofield.

Ruth’s idea for the MTCA and SMoCS courses came in 2009 when Ecology TCP gave a presentation at Huxley on The Former Scott Paper Mill and encouraged ideas for how to work with The Port of Analectors and Kimberly Clark. The new opportunities with external partners that have evolved from that presentation build on the training her students are already receiving at Huxley. The SMoCS courses integrate and apply student knowledge and skills from all their university courses. The best part is that these courses are only getting better as SMoCS faculty continue to build their own partnerships and knowledge within Huxley.

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