

# Instructional Related Activities Report Form

SPONSOR	DEPARTMENT
Linda O'Hirok Don Rodriguez Sean Kelly Tracylee Clarke May 2012	Environmental Science and Resource Management Political Science Communication

ACTIVITY TITLE	DATE (S) OF ACTIVITY
American Water Association Tour Metropolitan Water District Tour Colorado River Aqueduct	3/11 and 4/14-4/16

**PLEASE EXPLAIN (1) DESCRIPTION OF ACTIVITY; (2) HOW DID THE ACTIVITY RELATE TO A COURSE(S); AND (3) WHAT YOU LEARNED FROM THE PROCESS.**

Students in ESRM 463 Water Resources Management and UNIV 298 Water Conflict in the West participated in two field trips. On the one-day American Water Association field trip students visited critical water supply facilities of local water purveyors in Ventura County and discussed factors affecting reliability, safety, quality, quantity, and cost of water resources. The trip included visiting the Lake Bard Treatment Plant, Freeman Diversion Facility, the City of Oxnard Groundwater Recovery Enhancement and Treatment Desalter Plant, and Casitas Dam. A second three-day field trip was offered by Metropolitan Water District, a regional water wholesaler, and was designed to show the Metropolitan Water District's 242-mile Colorado River Aqueduct. Facilities and sites included the pumping plant on Lake Havasu, Diamond Valley Lake, Lake Matthews Terminus Reservoir, Copper Basin, Parker Dam, the Whitsett Intake Pumping Plant and the Salton Sea. Both trips included lectures on historical and current water issues, statewide and local, and discussions on policies, politics, conflicts, the environment, and science.

The major goals of Water Resource Management and Water Conflict in the West, an interdisciplinary course, were to introduce students to the complicated distribution of Southern California's water supply systems and understand the many challenges associated with water delivery. Challenges include water quantity, water quality, population growth in the southwest, impacts of climate change, sustainability, ecosystem degradation, infrastructure maintenance, identifying stakeholders, politics, and conflict resolution.

Water Resources Management had representation of students from ESRM, Biology, Political Science, Communication, and Business. Water Conflict in the West included students from ESRM, Political Science, Communication, and Business.

The two field trips addressed the goals and objectives for both Water Resources Management and Water Conflict in the West. Students presented posters and provided demonstrations at two Water Symposiums for University Prep Middle School and Madrona Elementary School, to formulate connections between theory taught in the classroom and concepts covered during the two field trips. Students demonstrated that they understand the factors influencing water availability on the Southern California coast, understand the concepts and principles of water and watershed management, can specify and quantify the important components of water management systems, can define water management problems, can predict external effects, can identify possible causes, and propose and evaluate solutions from both environmental science and resource management perspectives. They have also articulated the process steps of environmental conflict resolution and how the conflicts span national borders and understand the role of language and dialogue in policy development. The MWD field trip provided students an opportunity to understand the objectives of the Metropolitan Water District, as well as the politics/negotiations required to accomplish these goals. The American Water Association field trip presented local water concerns for students to understand how local agencies (United Water Conservation District, Casitas Municipal Water District, and the City of Oxnard) and MWD member agencies (Calleguas Municipal Water District) negotiate water quantity and quality for their constituents. The AWA field trip also focused on Ventura County agriculture water demands as well as escalating salinity problems and solutions.

Following the Colorado River Aqueduct for hundreds of miles through the Mojave Desert, visiting the pumping stations that must lift the water over the mountains, touring water quality labs, and experiencing the environmental disaster of the shrinking Salton Sea, provided students the opportunity to apply the theories and concepts learned in the classroom to the actual processes of acquiring and delivering a vital resource of water to municipalities, industry, and agriculture. Students also understand the environmental consequences and challenging mitigation when water is diverted and transferred from a watershed and dependent ecosystem to a desert environment with increasing human population. The 3-day MWD trip illuminated the significance of our future water concerns and conflicts.

**\*\*Please attach assessment forms from students, list of attendees, peoplesoft program report**

E-mail to the Dean's Office  
30 days after activity