

UTTON CENTER & NATURAL RESOURCES NEWS

China Trip Raises Awareness of Energy Challenges

The challenges of balancing the energy needs of an emergent world power with social and environmental issues were brought home to Marilyn O'Leary, director of the Utton Transboundary Resources Center, during a visit to China last fall. O'Leary was invited to speak at the International Conference of Reservoir Operations Managers. Her topic, "Water Law, Environmental Law and Collaboration in the United States."

As part of her visit, she took a boat ride up the Yangtze River to Three Gorges Dam, the most ambitious hydroelectric project in the world. At 1.2 miles across, with a series of five locks designed to increase ship



Marilyn O'Leary
with a Chinese hydrology student.

traffic from the China Sea to Chongqing, the nation's largest city, the project will generate one-ninth of China's electric power. Currently, the country relies on smog-producing fossil fuels, such as coal. The ambitious project will displace more than 1 million people and create a lake more than 350 miles long.

"After the trip up the Yangtze, I went to Beijing where the air pollution was astounding, and I rarely saw a clear sky," O'Leary said. "It showed me that there is no easy answer for how to deal with the environmental effects of energy development."

During the five-day conference at Sun Yat-sen University in Guangzhou, she enjoyed hearing people from countries such as Korea, Israel, Italy and Austria discuss reservoir management, including public input into the decision-making process. And she appreciated the opportunity to talk about the Utton Center's message of preventive diplomacy to address differing interests in controversial water projects.

"My trip to China made me realize that conservation is the easiest way to prevent ill effects of energy development. And once we have done as much conservation as possible, we have to look at mitigating those ill effects, because energy development is critical for emergent countries to alleviate poverty and aid growth and advancement," she said.



An elaborate network of locks
at Three Gorges Dam

Students Contribute to Natural Resources Newsletter

Early last year, when Jennifer Pruett ('83) agreed to revive Vista, the newsletter of the State Bar's Natural Resources, Energy and Environmental Law Section, she knew where to look for contributors: the UNM School of Law. She was, after all, offering money for articles and the opportunity to be published, two enticements sure to pique the interest of law students.

She has not been disappointed.

From an email seeking article ideas, Pruett has received more proposals than she can use. She chooses a few for each issue, paying up to \$300 for each one.

Josh Mann, a 3L and editor of the Natural Resources Journal, has written two articles for the newsletter so far, one on the San Juan River water settlement last spring and "Blowing in the Wind: How Many Generations Must Pass Before Indians get their proper royalties on their Oil and Gas," for the fall 2005 issue.

"I'd never written like that before," he says. "I felt like a journalist, talking to people to find out the real story behind these issues. For the oil and gas article, I sat down with Alan Taradash, who spent three-and-one-half hours explaining the whole issue to me. It was like taking a class."

Jennifer Hower, a 2L, appreciated the chance to interact with people she hopes some day to be practicing alongside. Her article was titled, "At the Well in New Mexico – Current Court Interpretations of the Definition of 'At the Well' in Natural Gas Royalty Cases."

"The experience was also very informative," she says. "Jennifer Pruett offered many good suggestions, and I felt it gave me insight into my own writing style."

Other students who contributed to the fall issue, which focused on oil and gas, were Mark Barron (3L), "Breaking Ground in New Mexico: The Role of the Accommodation Doctrine in Determining a Mineral Estate Owner's Obligation to Compensate Land Owners for Damage to the Surface"; and Alex Beattie, "Negotiating Pipeline Dreams." Gabriel Wade ('05) and Carlos Ruiz de la Torre (3L) contributed to the spring 2005 issue.

Kyle Harwood ('99), chair of the Natural Resources, Energy and Environmental Law Section, considers the students' contribution to the newsletter a first step in an ongoing relationship with the law school.

"I'm going to make it a priority to reach out to students in the Environmental Law Society and at the Natural Resources Journal, because I see them as future section members," he says.

Sandia Water Model Considered by Panamanian Officials

Susan Kelly, associate director of the Utton Transboundary Resources Center, provided details of a hydrologic model that can help predict future water supplies at a September conference in Panama City, Panama.

The conference, which focused on the wide varieties of techniques currently used in the United States to address water and environmental conflicts, was sponsored by the Evans Center, an alternative dispute resolution center at South Texas College of Law. The Panamanian government is planning to create an international dispute resolution center to address issues ranging from maritime shipping disputes to water and natural resource conflicts in Latin America.

The center will be located at the City of Knowledge, an international technology park, located in the Panama Canal Zone. This “city”, formerly a U.S. military base, was turned over to Panama as part of the Panama Canal Zone reversion, which took place in 2000. The reversion gave Panama independent control of the Panama Canal and surrounding area, which includes roads, airports, hospitals, community

centers and residential housing formerly occupied by U.S. military personnel and canal administrators.

The model Kelly presented originally was created by Sandia National Laboratories to aid discussion of a water management plan for the Middle Rio Grande. Utton Center staff helped organize meetings and comments from the many people involved in developing the model.

“The development of the model served as a form of conflict resolution in that the process gave stakeholders from different perspectives a forum to discuss issues in a productive manner,” she says. “They were able to reach agreement on many facts and better understand diverse viewpoints.”

The Panama Canal’s system of locks uses only fresh water, 52 million gallons of water every time a ship passes through, to be precise. Water administrators are concerned about municipal drinking water supplies, along with environmental and economic impacts, says Kelly, which is why they are interested in how the Sandia hydrologic model could help them predict the canal’s impact on their water supplies.

Center Joins with Sandia Labs on Energy-Water Project

The Utton Center has begun working with Sandia National Laboratories on a project that is looking at the mutual dependence of water and energy production.

“A lot of people don’t realize how connected they are,” says Mike Hightower, a scientist at Sandia. “We are seeing a growth of energy in the U.S. for electric power generation, ethanol production and refining petroleum products, all of which require water. At the same time, we are seeing a reduction in available fresh water supplies. These are two train wrecks ready to occur.”

To address this growing problem, he has begun working on a strategy called the Energy-Water Nexus (www.sandia.gov/energy-water). Naturally, his concentration focuses on science and technology issues, such as developing better technologies for electric generation and more efficient processes and materials

But he knows that science and technology alone won’t prevent a train wreck. Because of legal and policy issues that surround the regulation of water resources, he turned to the Utton Center for assistance in identifying constraints and incentives related to technology implementation. Three regional workshops are planned to gather information on different areas’ water needs.

Hightower also recognizes the need for collaboration among differing interests.

“We will compile the information we gather and develop a template for the assessment of issues that would affect putting into place new technologies,” says Marilyn O’Leary, director of the Utton Center. “This project also furthers our mission of preventive diplomacy: promoting collaboration and good management practices and thus reducing conflicts over water needs.”

Utton Center and IPL Review State Statutes

The Utton Center and Institute of Public Law (IPL) collaborated on a project for the Office of the State Engineer (OSE) to review the myriad statutes that authorize or govern water and wastewater systems in New Mexico.

Specifically, Utton Center and IPL staff members developed a series of charts summarizing and comparing the laws on the different systems while the OSE staff members prepared a companion chart on funding sources for system financing.

The study was done in cooperation with the New Mexico Environment Department and the New Mexico Rural Water Association. It was presented to the Legislature’s Interim Committee on Water and Natural Resources and New Mexico Finance Authority Oversight Committee in the fall.

“This was a formidable task as there are close to 20 different statutory forms for these systems, all of which provide varying degrees of statutory power and responsibility,” says Judy Flynn O’Brien of IPL.

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Susan Kelly Analyzes Reservoir Storage

Susan Kelly, associate director of the Utton Transboundary Resources Center, is representing the center on a water management subcommittee of the Middle Rio Grande Endangered Species Act Collaborative Program, a federally funded consortium of river water managers, universities, environmentalists, pueblo representatives and federal agencies.

The consortium is working to improve water management in the middle Rio Grande region, both meeting the needs of water users and improving the status of endangered species in compliance with the Rio Grande Compact. Issues being looked at include irrigation efficiency and how surface and groundwater interact.

Kelly spearheaded a preliminary reservoir storage modeling analysis, which looked at various options for storage and management of water in the middle Rio Grande region. This analysis can be found on the Utton Center’s website.