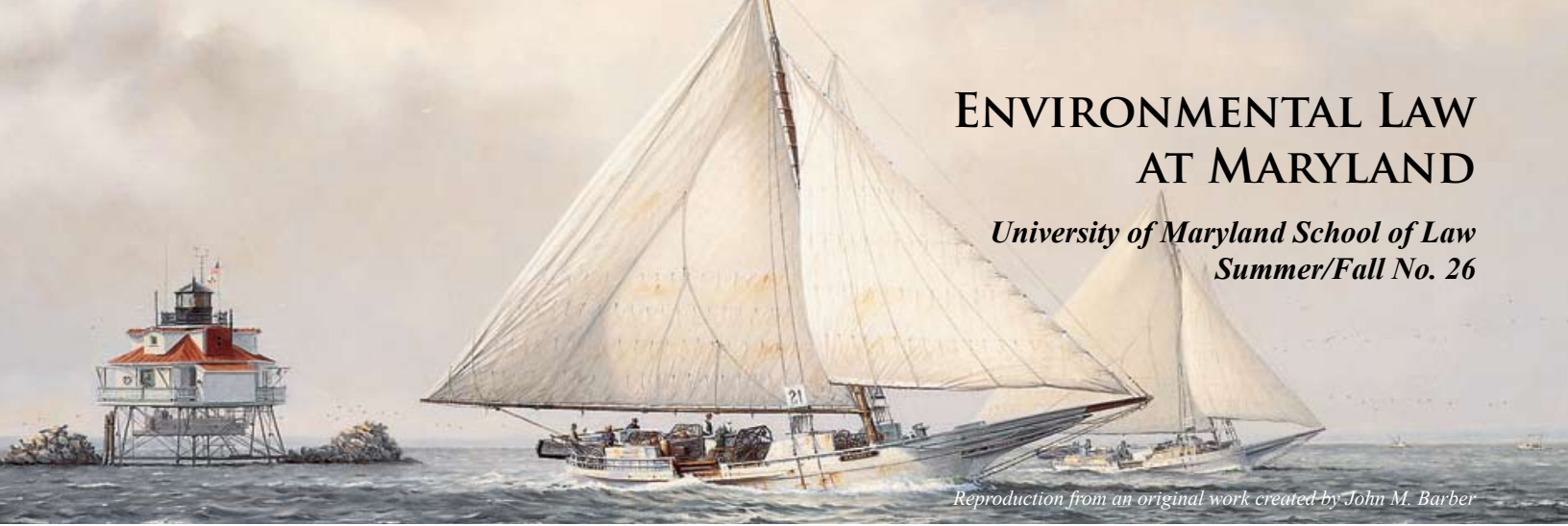


ENVIRONMENTAL LAW AT MARYLAND

*University of Maryland School of Law
Summer/Fall No. 26*



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MARYLAND LAW TO CO-HOST NORTH AMERICAN ROUNDS OF INTERNATIONAL ENVIRONMENTAL MOOT COURT COMPETITION



On February 6-7, 2009, the School of Law will host the Atlantic Rounds of the 2008-2009 International Environmental Moot Court Competition. This will be the first time that the North American Rounds of this prestigious competition have been hosted by a school other than its founder, Stetson University School of Law. Teams from law schools in the eastern half of North America will participate in the competition at Maryland. Maryland's team and teams from the western half of North America will participate in the Pacific Rounds to be held at the Santa Clara University School of Law on January 23-24. The top applicant and top respondent from each of these competitions will advance to the International Finals, which will be held at Stetson's Gulfport campus from March 25-29, 2009.



Since the competition began in 1997, it has grown rapidly in popularity. It now attracts entrants from so many law schools around the world that preliminary competitions will be held at nine locations, including Africa, Australia, Brazil, Northeast India, North India, South India and Southeast Asia. While teaching as a Fulbright scholar in China, Professor Percival succeeded in recruiting the first two Chinese law schools—China University of Political Science and Law and Renmin University—to enter teams in the competition. Information and registration materials, may be obtained online at www.law.stetson.edu/environmental.

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The Challenge of
Chinese Environmental
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Jane Barrett's Crusade on
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Gordian Unknotting:
A Call for a Renewed
Environmental State

The Clean Water Act:
A Blueprint for
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MARYLAND ADDS NEW COURSE ON ENVIRONMENTAL ADVOCACY

The Environmental Law Program is introducing an Environmental Advocacy course during the 2008-09 school year. The goal of the course is to improve students' advocacy skills and to establish the School of Law as a perennial contender in environmental advocacy competitions. The competitions include the Stetson University College of Law International Environmental Moot Court Competition, the Pace University Law School National Environmental Law Moot Court Competition, and the University of Richmond School of Law National Environmental Negotiation Competition. The instructors are School of Law graduates David Mandell and Karla Schaffer. Adjunct Professors Mandell and Schaffer competed in the 2006 Stetson Competition, coached the 2007 Maryland team at the Stetson Competition, and served as judges at the 2008 Richmond Competition. Each competition focuses on emerging environmental issues and provides students with the opportunity to research principles of international and environmental law. Students then move beyond the classroom to practice advocacy skills in an appellate courtroom setting or negotiations table against law students from across the country and the globe.

The Course will assist students in becoming better oral advocates through learning advocacy skills in an interactive environment as well as engaging in classroom discussions on concepts and controversies that underlie the facts of the competitions. Students will compose briefs for the competition of their choice and participate in practice moot court and negotiations sessions. Practice moot court sessions will feature local practitioners, jurists, professors, and alumni acting as guest judges. Some students will continue to the spring semester to further prepare to represent the School of Law at the competitions.

The Stetson Competition is the country's foremost international environmental moot court competition. The Stetson Competition holds qualifying rounds in Africa, Australia, India, Southeast Asia, Latin America, and North America. This year, there will be two qualifying rounds in North America. Santa Clara University School of Law will host the Pacific Rounds on January 23-24, 2009, and the University of Maryland School of Law will host the Atlantic Rounds on February 6-7, 2009. This year's problem involves a nation's intended harvest of large amounts of krill (a small crustacean) in the Antarctic region and a responding nation's seizure of a fishing vessel by force, addressing whether each nation's action is in violation of international environmental law. Qualifying teams will advance to the International Finals in Tampa, Florida, on March 25-28, 2009.

The Pace Competition is the nation's preeminent environmental law moot court competition. The 2009 Competition will take place February 19-21 at Pace University Law School in White Plains, New York. The Pace Competition attracts competitors from approximately 72 United States law schools. This year's fact pattern has not yet been released, but previous competitions have explored such topics as the commerce clause limits on water pollution regulations, and whether corporate officers can be criminally and vicariously liable for their company's environmental crimes.

The Richmond Competition, held annually in March,



David Mandell '07 and Karla Schaffer '07

draws teams from around the nation to compete against each other across the negotiations table. The Competition includes several rounds of negotiations with a set of facts that changes after each round. The 2008 Competition involved negotiations between a local company and the state environmental regulatory authority regarding responsibility for remediation of a polluted site. Each side had its own priorities and objectives and a set of private facts of which the opposing side had no knowledge.

Professors Mandell and Schaffer are currently seeking assistance from alumni and local practitioners to help prepare Maryland's teams by serving as judges in practice moot court and negotiations sessions. Those interested in assisting the Environmental Advocacy students by judging practice rounds should contact David Mandell at dmandell@law.umaryland.edu or Karla Schaffer at kschaffer@law.umaryland.edu.

A SABBATICAL REPORT: TEACHING ENVIRONMENTAL LAW IN CHINA

By Robert V. Percival

Watching scenes of Beijing during the Olympic telecasts, I was frequently reminded of sights and sounds that surrounded me on a daily basis just a month before. From February through July 2008 I taught in Beijing as a Fulbright scholar while on sabbatical from Maryland. I taught classes in Environmental Law and Comparative Environmental Law at the China University of Political Science and Law (CUPL). While I have taught terrific students at Maryland, Harvard, and Georgetown, this was one of the most rewarding teaching experiences of my career.

I was particularly fortunate to be able to teach at CUPL because it has the largest group of graduate students in China who wish to pursue careers in environmental law. Many of them were attracted to CUPL by Professor Wang Canfa, one of the top public interest environmental lawyers in China. Professor Wang runs an environmental law clinic and a public interest environmental organization, the Center for Legal Assistance to Pollution Victims (CLAPV). CLAPV has its offices on campus. Many of my students worked in the clinic, some answering CLAPV's hotline that receives complaints about environmental problems from all over China.

When I showed up for my first Environmental Law class, I was amazed to find 45 students who introduced themselves to me in excellent English. As I do in my classes at Maryland, I started the first class by filming the students introducing themselves. I use the video to make individual photos of each student. This allows me use the iPhoto program on my laptop to construct a digital seating chart, with the audio available to ensure that I can pronounce each name correctly. This was particularly valuable for helping me learn the Chinese names and their correct pronunciations and to be able to distinguish between the six students in my class with the surname Wang. It also elicited a warm response from the students who often have classes where they sit passively as the professor lectures without making much effort to engage them. The students were excited when I posted the video online for them to view (it is available online at: <http://gallery.mac.com/rperci#100102>).

I was impressed with the quality of the English spoken by my students, but I followed the advice of former Fulbrighters by speaking more slowly than I ever do at Maryland. Class discussions left me with the impression that the Chinese students had less appreciation of the threat of global warming than my Maryland students, perhaps because

basic pollution problems pose a much more immediate challenge in China. There also seemed to be much greater concern among my Chinese students about job prospects in the environmental field. While my Maryland students can be confident about job prospects in environmental law, the Chinese students are making a leap of faith that jobs will materialize in a field that is just developing.



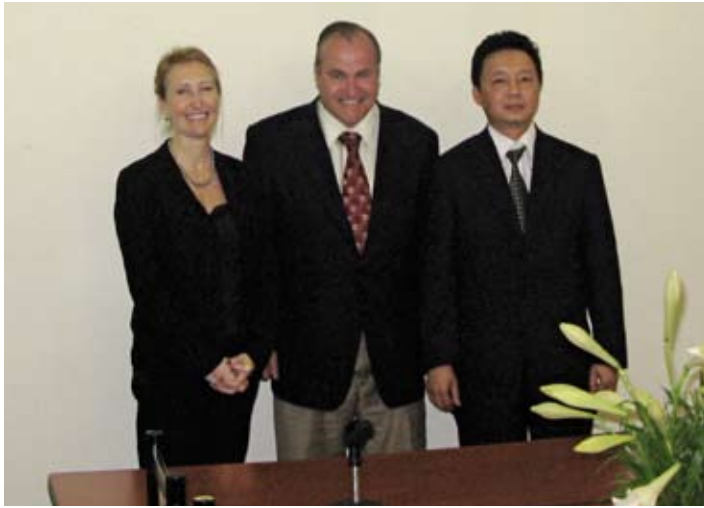
Guest Lecture in Shanghai

Early in the semester my Chinese students were thrilled when a group of 48 Maryland law students, faculty and alums came to China during their spring break. We held a special class with both groups of students where the Maryland students showed the short documentary films they had made in Environmental Law and conducted a moot court exercise. This was particularly valuable because my Chinese students also had agreed to make films and to become the first Chinese law school to enter the upcoming International Environmental Moot Court competition.

As I do in Maryland, I started each class with a brief discussion of current events pertaining to environmental law. The students seemed to really enjoy this and sometimes it stimulated discussions that ranged beyond environmental issues. When the riots occurred in Tibet in March, my students seemed mystified as to why Tibetans thought they were being oppressed by the Chinese government. Having traveled around Tibet last October with a Tibetan guide and driver, I was able to offer a different perspective to them. I also expressed my annoyance to them about how frequently CNN International and the BBC News channels were blacked out in my apartment when they started reporting about the situation in Tibet or the torch relay protests.

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One of the great features of the Fulbright program is that it funds Fulbright scholars to travel to other Chinese universities to give guest lectures. I gave guest lectures at Northwest University School of Law in X'ian, the Southwestern University School of Law in Chongqing, the Shanghai University of Finance and Economics, and four schools in Beijing – Tsinghua University's School of Law and School of Public Management and Policy, Renmin University School of Law, and the China University of Geosciences. One of the most enjoyable aspects of these lectures was the opportunity to engage in frank discussions of a wide range of legal and policy issues with Chinese students during lengthy question and answer sessions. The trips also gave



Professor Percival with Dr. Trong Hong Ha, director general of Vietnam's EPA and Allison Moore, director of the ABA's Vietnam

me opportunities to see more of China. In X'ian I revisited the site where ancient terra cotta warriors were uncovered. I coupled my trip to Chongqing with a trip by hydrofoil through the famous Three Gorges behind the Three Gorges Dam. The area is quite beautiful with dramatic cliffs on both sides of the river in many places. However, because the dam required relocation of nearly two million people, the scenery throughout the trip is marred by the scars of buildings abandoned to the rising waters. East of the town of Badong, smoke from cement plants pours along the river gorge, obscuring the scenery for many miles.

During the national May Day holidays I spent a week visiting Vietnam. In Hanoi I visited the Vietnam Environmental Protection Agency (VEPA) where I had a terrific meeting with Dr. Tran Hong Ha, Director General of VEPA. Dr. Ha was accompanied by several of his top staff, including Duong Thanh An, director of VEPA's International Division. We discussed the state of environmental law ("Moi Truong") in Vietnam. Environmental protection was included in the Vietnamese Constitution in 1992 and the country's first comprehensive environmental law was adopted the following year. In the subsequent decade considerable effort

was devoted to improving environmental law, culminating in the enactment of the new Law of Environmental Protection on November 29, 2005. Environmental law in Vietnam has not yet developed to the point where there is a specialized environmental bar, but both Hanoi University and Ho Chi Minh City University now have departments of environmental law. VEPA is focusing on developing regulations to implement the 2005 law and to conform to the requirements of international conventions that Vietnam has joined. The latter include the Convention on Biological Diversity, which we discussed with the VEPA official responsible for drafting the regulations. As in many developing countries, enforcement of environmental law has been a big problem in Vietnam, particularly because VEPA generally has been required to show actual harm before it can seek criminal sanctions.

In Hanoi I was taken to dinner by officials from the Vietnam Lawyer's Association (VLA) and the Vietnam Union of Science and Technology Associations (VUSTA). These included Pham Quoc Anh, president of the VLA who is a member of the National Assembly and Dr. Nguyen Hou Ninh, chairman of the Center for Environment Research, Education and Development (CERED). Dr. Ninh was a lead author of the Intergovernmental Panel on Climate Change's Fourth Assessment Report. He and other scientists in Vietnam are extremely worried about the impact of global climate change on Vietnam's environment. Because so much of the country is coastline, sea level rise could have a particularly devastating effect on the country. Dr. Ninh showed me a chart of forecasts for how the Mekong Delta could be devastated by sea level rise.

While in Hanoi I also visited the Ho Chi Minh Mausoleum and the "Hanoi Hilton" prison where John McCain was held as a prisoner of war. Most of the prison exhibits focus on the harsh treatment of Vietnamese nationalists by the French during the colonial period, but it also has a display of the flight suit and parachute John McCain wore when he was shot down. From Hanoi I visited Halong Bay, a World Heritage site that includes hundreds of spectacular karst islands. I then flew to Hue and spent two days exploring the central coast between Hue and Hoi An before flying to Ho Chi Minh City (formerly known as Saigon).

A week after I returned from Vietnam, I was teaching Environmental Law on May 12 when the massive earthquake hit southern China. We did not feel it in class, but the students quickly found out about it when they checked their cellphones for text messages during the first break. Two students had families in the earthquake area and they frantically tried to reach them by phone. The lines were all jammed for a few minutes, but they eventually got through and learned that their families were safe. A week later we stopped class at the moment the earthquake had hit and

stood for the three minutes of silence decreed throughout China to mourn the earthquake victims.

Environmental law expertise is in great demand in China because the Chinese government is scrambling to combat the severe pollution problems caused by rapid industrial development (See “The Challenge of Chinese Environmental Law” on p. 7 of this newsletter). As a result, I was invited to speak at several conferences. One of the most interesting was a conference held in Shanghai on “Open Information and Environmental Protection” that included many



Professor Percival with his Environmental Law class

environmental NGOs and journalists. The impetus for the conference, which was organized in part by NRDC’s China Office, was China’s new Open Information Act that became effective on May 1, 2008. At the conference Chinese officials explained how the new law will operate and they encouraged NGOs and journalists to use it to hold government agencies accountable. China’s new law is similar to the U.S. Freedom of Information Act, though it includes an additional exemption not present in the U.S. law: the Chinese government may withhold information on the grounds that its release would not promote “social stability.” The website for China’s new Ministry of Environmental Protection will enable citizens to file requests for information online, just as the U.S. EPA currently does. Representatives of some of the Chinese environmental NGOs complained that it has been difficult at times even to obtain copies of environmental impact assessments, something that hopefully will change as the new law is implemented.

I also spoke at workshops in Guangzhou and Beijing that focused on teaching and research in environmental law. These workshops, funded by Vermont Law School’s AID grant, gave me an opportunity to meet nearly all of the most prominent environmental law professors in China and many of their younger colleagues. The Chinese Ministry of Education is now requiring all law schools to offer courses

in environmental law, so there is great demand for anyone with experience in the field. Teaching methods in Chinese law schools are starting to change because of the realization that the old lecture and memorization format does not challenge students to develop critical analytic skills.

My students had little problem adapting to a teaching style that challenged them to think critically. I was delighted when several of them expressed outrage at the outcome of some of the decisions by U.S. courts that I assigned them to read. The U.S. Supreme Court’s *Kelo* decision allowing the government to take property for economic development sparked vigorous debate among the students because so many people in China have been displaced by development projects. My Environmental Law class often attracted Chinese faculty and lawyers for NGOs who were eager to hear about the U.S. experience. My students were so enthusiastic about the classes that they insisted on having class on June 9, even though it was a new national holiday tied to the traditional Dragon Boat Festival. The doors to the classroom where the course meets were locked due to the holiday so we relocated to another unlocked room. I was surprised to see that every student in the class was present, an impressive testament to the high level of interest in environmental law among this very talented group of students.

Early in the semester I had asked the students to split up into small groups to make short documentary films about environmental issues that concerned them, the same assignment I give the class at Maryland. The students appeared enthusiastic at first and I supplied them with a video camera and a laptop with video editing software. I expected to be bombarded with requests for help with video editing, but not a single student asked me for help. I assumed this meant that the students were not making much progress on the projects, particularly with the distraction of the earthquake. However, on the last day of class, when the films were due, I was surprised to find that the students had completed their films.

There were five films in all and I was really impressed with what the students produced.

“Red Beijing” features some nice acting by the students as they tried to demonstrate the impact of air and noise pollution in the city on their daily lives. “Loving Animals Is Loving Ourselves” includes photos of animals being rescued from the earthquake and it urged people to take care of abandoned and orphaned pets. “Disposable Chopsticks” attempts to dramatize the environmental damage caused by their use by involving actors playing the police and hospital employees. The students who made “White Plastic Pollution” interviewed shoppers about their reactions to China’s new ban on the free distribution of plastic bags by grocery

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PROGRAM COORDINATOR LAURA MROZEK RETIRING AFTER 21 YEARS OF SERVICE

To students she is a den mother, an earth mother, and sometimes even a matchmaker. To faculty she is a problem-solver, the glue that holds it all together, and the one person who truly understands that a program is more than a collection of courses. To the outside world she is a warm and cheery facilitator who ensures that no request goes unanswered. She is Laura Mrozek, Coordinator of the Environmental Law Program, and at the end of November 2008 she is retiring after 21 years of service to the Program.

Laura joined Maryland's Environmental Law Program at its founding 21 years ago as a faculty assistant to Professor Robert Percival. Her responsibilities expanded rapidly as the Program grew. She pioneered the notion of a program newsletter as a way of keeping in touch with the program's ever-expanding circle of students, alums, and friends. She created her own job placement service for students specializing in environmental law. She seeks out arriving first-year students interested in the program and interviews them to determine how she can help them. She recruits alums to serve as mentors to students. She knows where our alums are and what they are doing and helps them when they seek to change jobs. She recruits students to serve as externs for an expanding array of environmental organizations and entities. Laura's amazing "people skills" have taught many students even more valuable lessons than they learn in the classroom. Thus, it is no surprise that she long ago won the university's highest award for service to students.

Largely as a result of Laura's efforts, Maryland has succeeded in developing a true, full-service Environmental Law "Program" that has become a kind of warm and fuzzy extended family. This is reflected on the walls of Laura's office—one wall full of baby pictures from former students, another laden with plaques and certificates reflecting their achievements and pictures of each year's graduates who received certificates of concentration in Environmental Law.



To celebrate Laura's incredible career, the Environmental Law Program is sponsoring a retirement party for her, which will be held on Friday, November 21 in Westminster Hall in conjunction with the annual Environmental Law Winetasting. The Program is expecting a record turnout of alums and students to give Laura the kind of sendoff she so richly deserves. While Laura is truly irreplaceable, her dedication to the program extends to helping recruit her replacement, ensuring that the Program will remain in good hands even after she assumes "of counsel" status.

16TH ANNUAL ENVIRONMENTAL LAW WINETASTING TO BE HELD ON FRIDAY, NOVEMBER 21

A record turnout is expected when Maryland's Environmental Law Program holds its 16th Annual Environmental Law Winetasting on Friday, November 21. The winetasting will be held in Westminster Hall from 6:30-9 p.m. This year's event promises to be bigger and better than ever because it will be held jointly with the program's retirement party for Program Coordinator Laura Mrozek (see article above). All program alums, current students, and friends of Laura and the program are invited to attend. We promise to open lots of wines that were bottled even before Laura joined the program 21 years ago!

THE CHALLENGE OF CHINESE ENVIRONMENTAL LAW

By Robert V. Percival

The enormous environmental problems that have accompanied China's rapid development are readily visible to anyone who visits China today. Massive damage to the country's environment has occurred despite the Chinese government's adoption of strong environmental protection laws. While one might assume that a communist dictatorship would have no trouble enforcing its environmental laws, the situation in China is far more complicated than that, as I discovered while teaching environmental law at the China University of Political Science and Law in Beijing.

China's Environmental Problems

Living in Beijing for nearly six months, I rarely saw blue sky because the city is plagued with such severe air pollution that it often is difficult to tell whether or not it is cloudy outside. While breathtaking, new architectural wonders are rising up around the city, tap water remains unsafe to drink even in luxury hotels. In 2007 the World Health Organization (WHO) estimated that air pollution kills 656,000 Chinese annually, a third of all deaths worldwide from air pollution. The WHO also estimated that polluted drinking water kills nearly 100,000 Chinese every year. While well-off residents of Beijing have access to nearly every creature comfort in the world, the U.S. State Department still considers it to be a hardship post largely due to its severe pollution problems.

The Chinese government vowed to control pollution in order to host a "Green Olympics" in August 2008. Yet China's pollution problems are so enormous that the Chinese government was forced to resort to drastic, temporary measures during the Olympics, such as shutting down factories and construction sites, and banning half of all private cars from driving each day. Even these measures proved to be inadequate during the first few days of the Olympics to prevent the global audience from witnessing the kind of visible air pollution that now is a distant memory in much of the developed world. When construction of the Olympic Village was completed in early 2007, the Chinese government proudly announced that athletes staying there would have access to safe drinking water—something that Americans already take for granted, but for which most ordinary Chinese will have to wait for several more years.

China's Environmental Laws

In 1979, when it launched the economic reforms that produced China's rapid development, the National People's Congress (NPC) adopted the country's first national Environmental Protection Law. Five years later it enacted the Law on Water Pollution Prevention and Control and in

1987 it passed the Law on the Prevention and Control of Atmospheric Pollution. The NPC replaced China's basic Environmental Protection Law with new legislation in 1989, and during the 1990s it adopted legislation to regulate solid waste, to control noise pollution, and to conserve energy. In 2000, China strengthened its controls on water pollution and in 2002, it adopted an Environmental Impact Assessment Law. In addition to these environmental laws, China has more than a dozen natural resource protection laws including a Renewable Energy Law, Water Law, Forest Law, Grassland Law, and Mineral Resources Law.

The NPC meets each March to adopt legislation and environmental laws are now a prominent part of each year's legislative package. In 2008 the NPC adopted a new water pollution control law and it soon will require a national "cap and trade" program for controlling emissions of sulfur dioxide. Chinese officials have carefully studied the environmental laws of other countries and they have readily borrowed from them. After initially following U.S. models of environmental law, the Chinese government recently has become more attracted to European approaches to regulation that place more emphasis on the precautionary principle. This is reflected in China's Law on the Promotion of Clean Production, its "circular economy" producer responsibility law, and legislation requiring pre-market testing of chemicals similar to the European Union's far-reaching REACH program. While these programs have not yet been fully implemented, their adoption signifies the Chinese government's willingness to embrace whatever measures may help turn the corner in the fight to control the country's burgeoning environmental problems.

Obstacles to Implementing and Enforcing China's Environmental Laws

China's State Council, the branch of government responsible for issuing regulations, has promulgated more than 50 administrative regulations dealing with environmental protection. It reports that as of spring 2008 there were more than 660 local and sectoral regulations, and over 800 national standards related to environmental and resource protection. Why have these laws and regulations not been more successful in controlling China's severe pollution problems? Several factors have contributed to this failure.

China's initial environmental laws were largely statements of general principles that were ambiguous and difficult to enforce. China's economic boom and the pollution it generated roared forward faster than the nation's environmental laws could be implemented and enforced. Some

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laws proved to be difficult to enforce because enforcement concerns had been divorced entirely from the lawmaking process. In November 2005, the National People's Congress (NPC) sponsored a conference on improving China's environmental laws. At this conference I witnessed one of the NPC organizers reject a suggestion from a non-governmental organization (NGO) leader to include enforcement issues in future conferences by stating that the job of the NPC is to write the laws, not to enforce them.

Even after national environmental legislation was strengthened, it has proven difficult to enforce because of the highly decentralized nature of China's government. Most enforcement is the responsibility of local authorities who often fear that environmental regulation will disadvantage local firms. China may serve as a testament to the validity of the "race to the bottom" hypothesis that was a factor in centralizing environmental regulation in the United States. Some local officials have even encour-

mental Protection Agency (EPA) has 17,000 employees for a country with less than one-fourth the population of China. The MEP has many contract employees and it is now establishing regional offices, but it still actually operates more like the U.S. Council on Environmental Quality (CEQ) than like the U.S. EPA. Like CEQ, MEP must rely almost entirely on its ability to persuade government officials in other, more powerful agencies to defer to its wishes. To be sure, MEP's predecessor, the State Environmental Protection Agency (SEPA), occasionally did make waves by launching "environmental storms." In 2005, it suspended approval for 22 energy projects and in 2007, it suspended 82 steel and chemical projects for failing to comply with environmental assessment requirements. But these "storms" were temporary and they were widely viewed as part of a conscious effort by China's leadership to cool down an overheating economy.



China in Crisis (from l to r): Pollution in a tributary of the Yellow River; air pollution from a cement plant in the Three Gorges area; and air pollution from factories near Lanzhou.

aged companies to pay small emissions charges rather than operate pollution control equipment because the charges provide revenue for local governments.

Penalties for environmental violations in China are still so low that it often is far more economic to pay the small penalties rather than to comply with the law. Fines for water pollution violations were previously capped at 100,000 RMB (\$14,500), a ceiling that has just been raised by new legislation. However, efforts to persuade the Chinese government to adopt the U.S. EPA's policy of ensuring that fines for environmental violations at least recoup the economic benefit of non-compliance have not yet been successful.

China's national Ministry of Environmental Protection (MEP) has few direct enforcement authorities and a very small staff. In July 2008, the MEP was allowed to expand from 250 to 300 employees. By contrast, the U.S. Environ-

Chinese environmental officials lack much of the supporting infrastructure that helps to ensure implementation and enforcement of U.S. environmental laws. While there have been many public protests concerning environmental problems, the general public in China is not well educated about environmental concerns. The number of NGOs focusing on the environment is growing, but they lack the resources and influence of environmental NGOs in the United States. NGOs may operate only with the permission of the Chinese government and they can be shut down at any time without explanation. NGOs have a difficult time obtaining funding because China's tax laws do not encourage donations to them. Government censorship of the media can make it more difficult for NGOs to influence public opinion by publicizing problems. In June 2008, a Hong Kong-based NGO called Civic Exchange issued an alarming report on the health consequences of pollution in the Pearl River

Delta. The report was headline news on CNN International, but not mentioned in the mainland's state-run media. NGOs lack some of the legal tools they have in the U.S. because China's environmental laws have no express provisions for citizen suits to enforce them. While a few environmental NGOs press the courts for redress, China still does not have the kind of independent judiciary and tradition of respect for law that is essential for achieving environmental justice in the face of determined opposition.

Corruption is also a problem despite the central government's stated commitment to promote the development of the rule of law. In February 2008, China's State Council issued a remarkably candid White Paper on "Promoting the Rule of Law." The White Paper summarized some of the obstacles that still exist to achieving this goal as follows: "[I]n some regions and departments, laws are not observed, or strictly enforced, violators are not brought to justice; local protectionism, departmental protectionism and difficulties in law enforcement occur from time to time; some government functionaries take bribes and bend the law, abuse their power when executing the law, abuse their authority to override the law, and substitute their words for the law . . ." (State Council, Promoting the Rule of Law, February 28, 2008).

Efforts to Improve Chinese Environmental Law

The good news is that the Chinese government now is moving aggressively on many fronts to overcome the obstacles to implementation and enforcement of its environmental laws. This movement was spurred not only by its desire to host a "Green Olympics," but also by embarrassing incidents such as the major benzene spill in the Songhua River that occurred in November 2005. The spill forced a four-day cutoff of water supplies to Harbin, a city of nearly 5 million people, and it produced an international incident when the pollution crossed the Russian border. Recognizing that initial efforts by local authorities to conceal the spill had only aggravated the crisis, the Chinese government responded by adopting national spill reporting requirements and encouraging greater openness in reporting about the nation's environmental problems. Further impetus for strengthening China's environmental laws was provided when it was revealed that the country had badly missed the first-year goals for reducing pollution that had been included in its 11th Five-Year Plan (2006-2010).

Chinese media, including the English-language *China Daily*, now report aggressively about environmental problems and the importance of devoting more resources to combating them. The national government has been highly tolerant of environmental protests by the public, including flash mobs who helped block the siting of a chemical plant in Xiamen. An official of China's MEP opined at a public conference that the central government's tolerance

of environmental protests must represent a conscious effort to pressure local officials to improve environmental conditions. However, the central government did not intervene when local authorities arrested and imprisoned Wu Lihong, an environmental activist who protested the local government's failure to control pollution that caused a massive algae bloom in Lake Taihu.

Some Chinese NGOs are aggressively pursuing environmental issues. Wang Canfa, an environmental law professor at the China University of Political Science and Law where I taught, is the director of the Center for Legal Assistance to Pollution Victims (CLAPV). His group is a cross between an NGO and an environmental law clinic. Its small office at the university is always overflowing with law student volunteers who operate a hotline that fields environmental complaints from ordinary citizens from all over China. CLAPV frequently goes to court to seek redress for the complaints it receives, much like the first U.S. environmental lawyers did in the late 1960s before there was clear legal authority for citizen suits under U.S. law. While many courts rebuff the group, it has won some important legal victories, such as establishing that local officials must conform to existing environmental protection plans when they issue permits for new projects. Other Chinese environmental NGOs emphasize publicity rather than litigation. Ma Jun's Institute of Public Policy focuses on publicizing environmental violations, which the Chinese media eagerly report, particularly when the violators turn out to be multinational corporations.

In March 2008, the State Environmental Protection Agency was upgraded to full ministry status with the creation of a new Ministry of Environmental Protection (MEP). While many details of MEP's new powers remain to be worked out, the Chinese government has pledged to increase its authority at the expense of competing agencies like the powerful National Development and Reform Commission (NDRC), which heretofore has not been a champion of environmental interests. For now the effect of this has been largely just a change of name, with the MEP still trying to figure out its functions, personnel, and other issues—questions that are not clearly answered by any underlying law. However, the creation of the MEP reflects the government's understanding of the need to increase the power of the central government's environmental officials.

MEP has some progress to report. In June 2008 its *Report on the State of the Environment in China* disclosed that emissions of sulfur dioxide declined by 4.7% in China in 2007 and that emissions of water pollutants declined by 3.2%. The percentage of coal-fired power plants using technology to reduce their sulfur emissions increased to 48% from 12% two years before. During the same period the

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percentage of cities with wastewater treatment increased from 52% to 60%. Yet, the MEP conceded that the pollution of the country's major rivers—the Yangtze, Yellow, and Huaihe—is serious and not improving, and that lake pollution and pollution in rural areas also remains severe.

MEP officials have been encouraging greater public participation in environmental issues in part because they view public pressure as an important vehicle for supplementing their heretofore meager powers. A new Open Information Law, which became effective on May 1, authorizes public access to information possessed by government agencies. The law is remarkably similar to the U.S. Freedom of Information Act (FOIA), which sounds like a radical step for a communist government. However, when one reads the law carefully, one discovers that there is an exception not contained in the U.S. FOIA for information whose release might undermine “social stability.” This virtually guarantees that the government need not disclose anything that could severely embarrass them. In May, I spoke at a conference in Shanghai where MEP officials explained to environmental NGOs and environmental journalists how to use the law.

Representatives of these groups complained that in the past it has been difficult even to obtain copies of environmental impact assessments, something that hopefully will change as the new law is implemented. Environmental NGOs also complain that there often is less than meets the eye in highly touted new environmental legislation. For example, while China's new water pollution law supposedly authorizes class actions, upon carefully reading it also appears to bar such lawsuits from being brought for problems that were known by the plaintiffs.

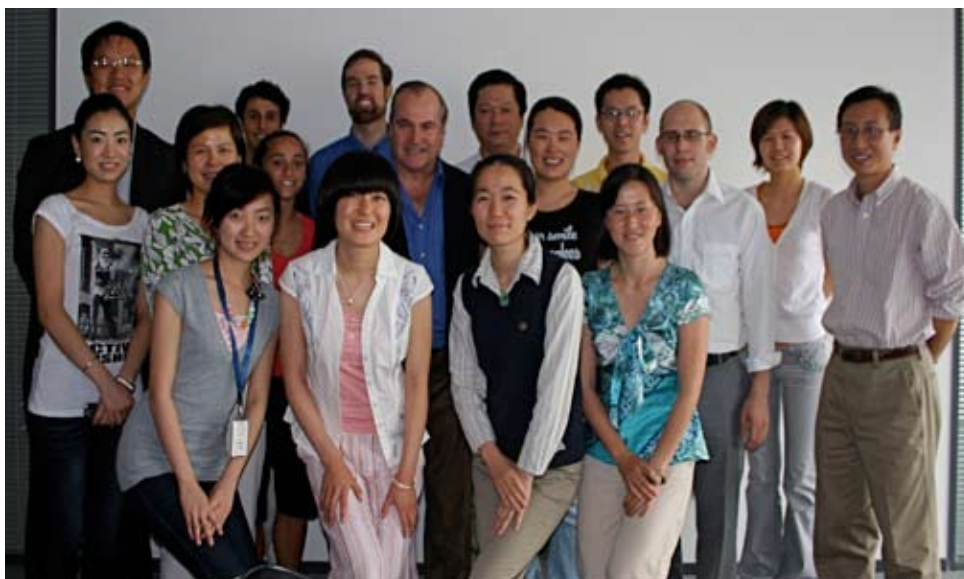
Chinese law has not yet developed to the point where there is a substantial private bar specializing in environmental law, aside from some lawyers working on Clean Development Mechanism projects on behalf of foreign investors. Yet as Chinese environmental law matures, the demand for environmental lawyers should increase dramatically. The Chinese Ministry of Education is now requiring that all law schools in China teach environmental

law, which may temporarily strain the supply of qualified professors. The environmental law students I taught were truly extraordinary and if they are at all representative of the future generation, there is room for considerable optimism. Environmental education also is expanding outside of law schools. Groups like Shanghai Roots & Shoots are working on environmental education in Chinese primary schools and Yao Ming, the country's most revered hero, now appears on billboards urging Chinese to eschew shark fin soup to protect endangered species.

Conclusion

China has come a long ways since the days of Chairman Mao's campaign to “subdue nature.” While Chinese environmental law is now moving in a positive direction, it will take considerable time before environmental conditions in

China improve substantially. The question is how much damage will be done in the interim—a question that increasingly affects the entire planet. Transboundary pollution from China is already a serious problem—some scientists believe that Chinese coal-



Prof. Percival with staff of NRDC-Beijing office

fired powerplants are the source of nearly one-third of all mercury pollution in the western United States. Last year, China became the largest source of greenhouse gas (GHG) emissions in the world, surpassing the U.S. by a whopping 14%. When the nations of the world meet in Copenhagen in 2009 to negotiate a successor to the Kyoto Protocol, it will be absolutely critical for China to commit to reduce its GHG emissions, even though on a per capita basis they are much lower than those of the U.S. While many believe that it will be impossible to get the Chinese to make such a commitment, China's emissions are now so large that the nation will have to do so if it wishes to avoid potentially catastrophic consequences for its own environment.

Environmental law in China today bears some similarities to U.S. environmental law in the early 1970s when its basic infrastructure was being erected. In both countries

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JANE BARRETT'S CRUSADE ON THE CHESTER

By Ann Collier

This article was originally printed in the 2008 issue of Currents, an annual journal produced by Chester River Association.

Jane Barrett, a hard-charging litigator and environmental law professor at the University of Maryland, is a stickler about rules—starting right here in the Chester River watershed.

After more than 30 years of both private law practice and work on behalf of federal and state environmental agencies, she believes that recent efforts to clean up the Chesapeake Bay have faltered on a key point: people failing to follow the rules.

“You can have all the laws in the world, but it is enforcement of those laws that is critically important if you’re going to have a meaningful impact,” says Barrett who, as the new director of the University of Maryland’s Environmental Law Clinic and associate professor of law, has emerged in a role vital to Chester River Association (CRA) and other state Waterkeeper Alliance affiliates.

Notably, the Law Clinic this year filed a lawsuit for CRA in federal court against a chemical manufacturer that is believed to be violating the U.S. Clean Water Act.

Under Barrett’s leadership, the Environmental Law Clinic is reaching beyond legal policy research to a new goal: dogged enforcement of the Clean Water Act, the national law governing the discharge of pollutants into water bodies.

Like pollution police, she and her law student team seek to identify and prosecute companies that violate their pollution discharge permits. In their quest, they have ventured from farmers’ fields and small-town offices to river banks and drainage ditches, where most chemicals leech into the bay.

Barrett’s work comes at a critical moment. Despite more money, laws and public attention, the Chesapeake Bay is failing to achieve clean-up targets set for 2010 by the Chesapeake Bay Program, the regional organization overseeing the effort. For example, the bay currently meets only 18 percent of the goal to reduce nitrogen pollution by nearly 110 million pounds. Meanwhile, chemicals from agricultural fertilizers, polluted stormwater from paved surfaces and dirt are washing into waterways, choking underwater grasses and aquatic life.

Better enforcement of the Clean Water Act is key to cleaning up the Chesapeake and its tributaries. That’s where the 15-year-old Law Clinic comes in. Enforcement requires

manpower: willing investigators who can monitor businesses for pollution violations. It also requires legal expertise, a scarce commodity when lawyers can charge higher fees of corporate clients. Barrett’s pro bono clinic has a staff of between 9 and 12 law students with legal savvy often lacking in citizen organizations.

CRA Versus Velsicol

Last year, Barrett received a phone call from Bob Parks, CRA’s executive director. Parks was concerned that Vel-



Law Student Todd W. Hesel and Jane Barrett

sicol Chemical Corp., a global plastics and food additives producer operating a small plant in Worton, did not have current environmental permits, which regulate the amount of pollution allowed by farms, marinas and other businesses.

Barrett, 55, was no stranger to the watershed. She frequently visits relatives here, enjoying weekend trips boating on the river. With Parks’ call, she found herself considering familiar terrain from a professional vantage point.

After a review, the Law Clinic concluded that the situation was worse than expected. Water samples taken by CRA showed Velsicol to be discharging excessive amounts of phosphorus and BEHP, an organic chemical used to make plastics, from a pipe into nearby waterways.

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On March 12, Barrett and the Law Clinic filed a suit on behalf of CRA against Velsicol in U.S. District Court in Baltimore. According to Barrett, it is one of the few citizen lawsuits filed in Maryland against a company in the past decade. Under federal environmental statutes, citizens are allowed to bring lawsuits to enforce provisions of the law that they feel aren't being met by the government.

The suit charges Velsicol with violating the Clean Water Act by illegally discharging chemicals into an upper tributary of the Chester River. CRA samples, analyzed by an independent investigator, found the BEHP concentration far exceeds the water quality standard for safe fish consumption. Also, the pipe was discharging more phosphorus and BEHP than allowed under the permit, according to the lawsuit.

Among other things, the suit asks Velsicol to correct any problems associated with the facility's stormwater management controls; to establish the full extent of contamination and to remediate it; to cease the unauthorized placement of wastewater into unlined impoundments; and to stop the land application of waste sludge at the plant. It also asks Velsicol to develop a system requiring regular water sampling and to report its results to CRA. If Velsicol does not comply, the suit seeks fines of up to \$32,500 per day.

"We would much rather the problems had been fixed than to sue, but we cannot simply ignore discharges that we believe are dangerous and that harm the river," said Chester Riverkeeper Tom Leigh. "Jane Barrett was absolutely invaluable in helping us to get this case off the ground. And the law students she works with are really impressive."

A Watershed Advocate

Born in California and raised in the Midwest, Jane Barrett moved to Maryland as a teenager. After graduating from Loyola College in Baltimore, she attended the University of Maryland Law School, where she developed a passion for litigation.

Her law school graduation in 1976 coincided with the continuing growth of the environmental movement. At the time, environmental organizations were full of opportunities for young lawyers. Barrett took a job as an enforcement attorney for the Environmental Protection Agency in Washington, D.C. and found her niche.

"I realized there that I could make the biggest contribution as an environmental lawyer since there was such a potential to make a difference," she says.

Over the years, Barrett has amassed an impressive bio: Assistant Attorney General of the Environmental Crimes Unit for Maryland; Assistant United States Attorney and Chief of Environmental Litigation for the District of Maryland; and partner at Blank Rome, LLP, a nationally known firm where she chaired the White Collar Investigations

practice group. Barrett left Blank Rome in July 2007 to join the University of Maryland faculty.

Her experiences have underscored her belief in environmental law's fundamental importance. "Environmental law is a critical component of not only a healthy planet but a healthy life for all of us who live in this economy," she says.

"With climate change on the forefront, it will play an even greater of a role in people's lives."

While in private practice, Barrett was impressed by the University of Maryland Environmental Law Clinic's advocacy effort and policy research.

In 2006, for example, a student report demonstrated the lack of enforcement of the 1984 Critical Areas Act, de-

"I saw the clinic as an amazing opportunity to work with young people and to contribute to a new generation of environmental lawyers"

signed to protect bay shorelines and other fragile habitat from encroachment. Barrett credits the report with influencing the Maryland legislature's recent revision of the Critical Areas Act, which includes an increased emphasis on enforcement.

The students also play a vital role in reviewing and providing input on Clean Water Act permits issued by the Maryland Department of the Environment. Through the clinic, students contribute their time and legal expertise to reading the permits and making recommendations for their improvement.

Impressed by their work and hoping to mentor young environmental lawyers, Barrett last year joined the University of Maryland Law School as a professor and director of the Law Clinic. "I saw the clinic as an amazing opportunity to work with young people and to contribute to a new generation of environmental lawyers," she says.

Under Barrett's leadership, the Law Clinic is giving students many opportunities to practice environmental litigation themselves. "We want to make sure when working with our clients that companies comply with their obligations under environmental law."

The Velsicol case is just the beginning. Barrett believes for certain that there will be more to come. "The law is good enough," she says. "But we have a long way to go until enforcement in the Chesapeake takes place."

— *Ann Collier, who grew up on the Chester River, is a freelance writer.*

GORDIAN UNKNOTTING: A CALL FOR A RENEWED ENVIRONMENTAL STATE

By Oliver Houck

The following book review appeared in the July/August 2008 Edition of The Environmental Forum.

“The government is the enemy until you need a friend.”

— *Former Senator William Cohen*

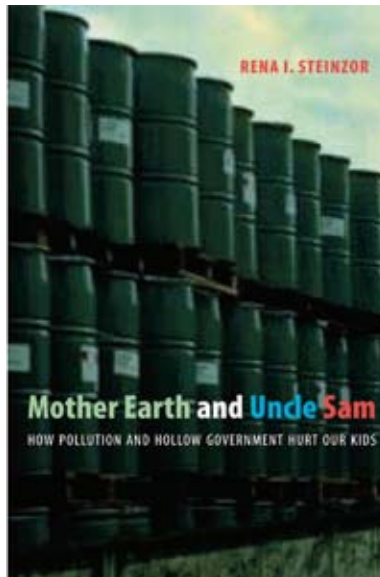
The surge of attention to climate change may not yet have produced tangible results, but it has at least served to re-legitimize the notion of environmental protection. At the same time, however, there is a danger that the intense focus on carbon emissions will obscure other serious environmental problems that have been deflected and otherwise lost in “the vast hallways of the federal bureaucracy.” Lost for exactly the same reasons that stymied the regulation of carbon, it is an environmental protection system made so dysfunctional it can no longer protect.

Such is the thesis of University of Maryland Professor Rena I. Steinzor in *Mother Earth and Uncle Sam: How Pollution and Hollow Government Hurt Our Kids*, and she knows what she is talking about. A former Capitol Hill staffer and then environmental law teacher and litigator for nearly two decades, she has made the workings of the federal establishment her specialty, publishing articles along the way on pollution regulation, benefit-cost analysis, voluntary compliance programs, and Office of Management and Budget review, the pistons and gears of the environmental state. As some indication of her passion for the subject, she took her last academic sabbatical in Washington, D.C., working with a public interest firm to create an administrative reform agenda. She has now put these pieces together in a frame that attempts to tell why the system went wrong, how it went wrong, and how it can get back on track. This is of course a tall order.

She does not attempt the whole story. It has almost become custom that, following Republican administrations dating back to the 1980s, books with titles like *A Season of Spoils* and *Science Under Siege* emerge with accounts of the reckless dismantling of resource management or pollution control programs. The next book to come of this genre will have to be an epic if it is to include the almost daily revelations of suppressed science, transferred biologists, gag orders, tainted review panels, twisted legal mandates, and lobbyist-written conclusions that have so corrupted

environmental policy that if the federal government asserts that the XYZ is not in trouble because of PCBs or sea level rise you can bet the farm that it is. This is in fact Steinzor’s point of departure, the fall of government credibility in general and its environmental credibility in particular. She goes on to tell three powerful stories, each dealing with a major failure in pollution control, and with a particular set of vulnerable victims: children. They are the common denominator, and the hook.

Each story is a good read, not only for the background and data provided, complete with charts and graphs, but also for the easy introduction to the hidden insider concepts that control the game. The first account treats the regulation of mercury which, when it last crossed the screen of most Americans, had been banned in some uses for the threat it posed to commercial seafood. In a particularly nice introduction, Steinzor notes that the Mad Hatter in Alice in Wonderland could have been the most celebrated victim of mercury poisoning, as it turns out that mercury was used in stiffening the stovepipe hat back in the days of Alice, and hatters were “poisoned to such an extent that they suffered irreversible dementia.” Having caught our attention, what follows is the now-familiar-to-anyone-who-has-dealt-with-EPA scenario of an attempt to set a protective standard, cries of outrage from industry, a National Research Council study affirming EPA, more threats and delay, congressional hearings, the neutral expert who turns out later to be on the industry payroll (\$446,000 in this case, which is not a bad day’s work); meanwhile, the agency has also decided under the baton of a new political appointee to abandon the technology controls over mercury emissions called for by the Clean Air Act in favor of a trading policy apparently taken, in part, verbatim, from industry sources and their law firm, which just happens to have been the firm where the new appointee had been practicing. Welcome to Washington. Right down to the point where an EPA acquaintance with whom Steinzor had been discussing the regulation told her, “Forget you ever talked to me.” Welcome to the New Washington.



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There is more. Do you know what the monetary value of an “IQ point” is? I didn’t. But it is important to know, because in the benefit-cost assessment EPA conducted to support a softer mercury standard it comes to \$8,807 per person, per point. The sum would be considerably higher, apparently, but for the agency’s reasoning that mercury impairment will only show up later in life, so we can discount for now, and will largely show up in poor people, and they don’t stay in school that long anyway, so we can discount the IQ point a little more. Maybe a lot more. Welcome to the new Benefit-Cost Washington. As a final twist, EPA calculated the annual benefits of regulation at, tops, \$3 million. Several academic studies put it at \$4.9 billion. What is one to do with discrepancies like that?

With this as the flavor, we can look in less detail at the two remaining stories, the regulation of the toxin perchlorate and of ozone in ambient air. Perchlorate is used to make bombs and rockets and for decades the military washed the leavings into the ground, standard practice of the day. Only, perchlorate is highly soluble, it does not degrade, and it attacks the endocrine system in the very young. EPA is charged with the control of toxins and the Department of Defense with making weapons. Do we have any doubt of the outcome here? Along the way we have directed White House intervention to suppress one study, and a bevy of industry-sponsored studies which outnumber those of the agency by almost four to one.

The ozone story introduces us to yet a new concept, “the outdoor child,” the one who contrarily refuses to go home and get on line but rather, chooses to play in the out of doors (of all things), where he is of course exposed to air, bad air in this case, ozone-rich air, and contracts asthma. An estimated 9 million American children have asthma, up about 100 percent in the last 20 years. We learn that boys suffer more than girls, and that the children of the poor more than those of the affluent. It just may be because they live where the energy plants drop their load, as do cars, trucks, and the great American gasoline machine. In 1997, the EPA of another day proposed to lower the ozone standard, to which the industry of course objected, every significant ozone precursor emitting source in America challenged the constitutionality of EPA regulation under the Clean Air Act, and at last a compromise, but at least a compromise, was reached. It was something of a pyrrhic victory because, in the end, all the agency had done was promulgate a standard and it was up to the states to see that it was met through implementation plans. States and cities have been resisting, gaming, and otherwise abusing these plans for the last 30 years. The asthma count continues to rise.

So far so good, we have a very informative and readable book, particularly for those entering the field of environmental studies, policy, or law. The difficulty comes with the bookends, a long introductory section that previews both the stories and the lessons that they contain, and a concluding section that climbs a similar hill. An editorial option here would have been to let the stories tell themselves and then extract the pedagogical meat, but perhaps for teaching purposes the first section was thought necessary. That part is a trade-off, better clarity for the less initiated, perhaps, but a certain repetitiveness and the risk of losing your

“Each story is a good read, not only for the background and data provided, complete with charts and graphs, but also for the easy introduction to the hidden insider concepts that control the game.”

audience. Which would be a shame, because this book has much to say.

And one last thing to say. In the concluding section, after brief discussions of American public opinion on the environment, the conservative movement, and the progressive movement, which, in the construct of the book, jumps us back to the beginning, we have Steinzor’s remedies for the bureaucratic gridlock that her book so ably describes. She has thought through these ideas in other writings, and some seem more major than others, but at bottom her Rx is a presumption in favor of “protecting children from industrial pollution,” which could be overridden only where there are no “reasonably available technological alternatives,” or the activity is so “valuable to the society at large” that it would be “wrong to protect the few [children] at the expense of the many.” This is a powerful prescription in the hands of the right people, but exactly what alternatives are “reasonably available,” and what activities are “so valuable” to the society at large will look very different from one administration to another. Perhaps her most succinct suggestion is to dispense with the benefit-cost calculation in favor of simply comparing the costs of various control options. Again, however, this approach presumes harm, or otherwise stated, benefits, of a magnitude sufficient to justify incurring any costs at all. Are we back to square one?

In the end, the author cannot be faulted for gnawing on a Gordian knot that no one else has been able to undo either. This much is certain, she has faith in the administrative environmental state. In a democracy, that state is going to be as healthy as the support it receives from the White House

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SCHOOL OF LAW HOSTS ABA GLOBAL WARMING CONFERENCE

By Chris Montague-Breakwell '10, and Andrew W. Keir '10

On June 6, 2008, the University of Maryland School of Law hosted the ABA's 36th National Spring Conference on the Environment. The topic for this year's conference was "Global Warming II: How the Law Can Address Climate Change." After Professor Jane Barrett, Director of University of Maryland School of Law's Environmental Law Clinic, welcomed the attendees, Stephen J. Humes of McCarter & English LLP in Hartford, Connecticut began the conference by listing as topics several world, federal, and state climate change regulatory schemes, and introduced the moderator of the first panel, Kyle W. Danish of Van Ness Feldman in Washington, D.C. Mr. Danish described the first symposium, entitled "The Brave New Regulatory World," as covering actions from all branches of federal government on global warming.

The morning's first speaker, Vicki Arroyo, Director of Policy Analysis at the Pew Center on Global Climate Change, said that the public climate change debate now focuses on mitigation and adaptation. As the science behind climate change has advanced, she said, the media has increased its coverage of the issue and has shifted away from doubting the theory of global warming. Arroyo discussed federal climate change mitigation efforts, including the Boxer-Lieberman-Warner bill that has stalled in the Senate. Additionally, she stressed the importance of state-level climate change mitigation efforts.

Joel C. Beauvais, Majority Counsel of the House Select Committee on Energy Independence and Global Warming, discussed the progress made toward passing climate change legislation. Until the current Congress, he said, any discussion of climate change was "verboten." Beauvais described the House's deliberative legislative process, and said that while no one expected to pass federal climate change legislation this year, it is important to begin the debate. He promoted the Investing in Climate Action and Protection Act (ICAP), introduced by Congressman Ed Markey. ICAP focuses on five key principals: science based emission targets, allowance allocation, return of proceeds to low income families, investment in energy efficiency, and encouraging other nations to follow suit.

The final speaker on the panel was Jeffrey R. Holmstead, former EPA Assistant Administrator for Air and Radiation who is now a partner at Bracewell & Giuliani in Washington, D.C. Holmstead stressed the scale of the restructuring required to combat climate change. The key to decreasing greenhouse gas emissions is increasing efficiency, but politicians have not focused on this less



"sexy" goal. Developing nations are focusing on lifting billions of people out of poverty, Holmstead said, and these nations will require clean energy production technologies to accomplish this goal without contributing to climate change. He criticized cap and trade schemes for doing nothing to push the required technological advances. Additionally, Holmstead asserted that the Clean Air Act is not suitable for regulating carbon emissions.

The second panel, "A New Global Law Paradigm Post-Kyoto?," began with speaker Stephen Harper, Global Director of Environment and Energy Policy at the Intel Corporation, who discussed creating an effective global climate change policy. Setting short-term goals is the key to encouraging technological breakthroughs, he said, but currently the required emissions intensity goals are unknown. While cap and trade schemes work well for power production and transmission, Harper said that other industries cannot avoid their greenhouse gas emissions. He discussed the importance of technology transfer from developed to developing nations, but he expressed concern over its effects on protection of intellectual property. Harper concluded by emphasizing technology's crucial role in combating climate change, and hoping for a "Manhattan Project" aimed at reducing carbon emissions.

Nigel Purvis of the Brookings Institution and Climate Policy Center emphasized the importance of establishing an effective national climate change policy before engaging

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in international schemes. Purvis described the necessary elements for an effective climate policy, including a focus on reducing carbon emissions to 1990 levels by 2020, a research and development “Apollo Project” with annual investments of \$15 billion to \$30 billion, and adaptation measures to aid impoverished peoples most at risk. Purvis argued that the U.S. should eschew the treaty model requiring Senate ratification of a new global climate agreement in favor of an executive agreement. Executive agreements are used in hundreds of subject areas, he said, and can be approved by Congress with a simple majority vote in both houses.

Professor John C. Dernbach of Widener University School of Law emphasized that developed nations, which have contributed the most to climate change, will be only minimally affected, but developing nations, which have



Maryland Attorney General Douglas F. Gansler delivered the afternoon keynote address

contributed very little, will bear the greatest burden. He asserted that scientific uncertainties should not be an excuse for inaction, because early action has its own benefits, such as reducing other pollutants, creating new jobs, developing new technology, and improving energy efficiency. Dernbach cautioned that the longer the world waits before fixing the problem, the costlier

the solution will be. Cap and trade schemes are an effective tool for addressing climate change, he said, but these schemes do not improve energy efficiency.

The morning keynote address by the Honorable Philip D. Moeller, Commissioner of the Federal Energy Regulatory Commission (FERC) focused on what that agency can do to address global climate change. Moeller described U.S. energy policy as regional, because different areas emphasize different local sources of energy. Southeastern states typically lack renewable energy sources, Moeller said, and they will fight carbon offsets. Industry is similarly split, he said, with coal and petroleum refining companies opposing offsets and nuclear energy companies supporting them. Moeller listed things that FERC can do to mitigate climate change, including approving electrical transmission lines,

promoting efficiency, and educating consumers. However, he cautioned that consumption-side initiatives, like installing visible power meters, decoupling energy profits from sales, and changing building codes to encourage efficiency require state action.

Maryland Attorney General Douglas F. Gansler delivered the afternoon keynote address, discussing the state’s efforts to limit greenhouse gas emissions. Gansler said that, absent federal global warming legislation, states and municipalities must act to reduce carbon emissions and forestall rising sea levels. He highlighted Maryland’s participation in the Regional Greenhouse Gas Initiative (RGGI), a cap and trade program involving ten northeastern states starting in 2009. RGGI aims first to cut emissions from power plants. Eventually, RGGI may cover other carbon-emitting sources. Gansler took a pragmatic approach to limiting greenhouse gas emissions, holding out nuclear energy as a necessary stopgap until other technologies mature and proposing that chicken-manure fueled generators be added to tier one alternative energy sources along with wind and solar.

Michael B. Gerrard, of Arnold & Porter, led off the third panel on state and local action in climate change law. He noted that 20 states have laws similar to the National Environmental Policy Act (NEPA), which requires consideration of environmental impacts before major projects are approved. The contribution of new projects to climate change is increasingly being considered in environmental impact statements as states and municipalities become more aware of their contributions to the problem.

Clifford Rechtschaffen, California Special Assistant Attorney General, criticized the federal government’s lack of action in responding to climate change. He said that federal government should lead or get out of the way. Without federal direction, states have developed their own systems to combat global warming, from renewable energy portfolios in 31 states to regional greenhouse gas initiatives covering 89% of U.S. emissions. Rechtschaffen pointed to California as a role model for energy efficiency, noting that energy consumption per capita has leveled off in California even as it has increased in the rest of the U.S. He attributed this to California’s building and appliance efficiency standards and policies decoupling utility revenues from the amount of electricity sold.

Malcolm Woolf, Director of the Maryland Energy Administration, focused his talk on the roles of states and municipalities in reducing greenhouse gases. He noted Maryland’s efforts to reduce carbon emissions through such initiatives as RGGI and the Clean Cars Act. Woolf said that reducing electricity consumption could greatly reduce emissions. He emphasized a consumer-driven approach to conservation, looking for creative ways of giving consum-

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SAVE THE BAY: GROW OYSTERS

By Laura Pacanowsky '07

It is such a rarity to hear about an environmental solution that is not only environmentally beneficial, but also economically advantageous. All too often environmental solutions require selfless abstinence or generous donations. However, if the aquaculture oyster lives up to its potential, it could help restore the Chesapeake Bay, make money for everyone involved, and taste delicious doing it. Unfortunately, this novel concept has not gotten the publicity it deserves.

The health of the Chesapeake Bay has been on the decline for the last hundred years. Due to overharvesting, disease and pollution, the oyster population has dropped dramatically to around one percent of its historic level. Not only is this the loss of a coveted food source, but it is also the loss of a crucial filtering system for the Bay. One oyster is capable of filtering up to five liters of water per hour. More pollution means fewer oysters, which means less filtering, which leaves more pollution, compounding the damage. The government has tried to step in with restrictions on point sources of pollution and expansion of water treatment plants. Sadly, these measures have not been enough to combat all the pollution making its way into the Bay.

The aquaculture oyster is a promising remedy to the problems associated with the Bay. Aquaculture is the cultivation of the natural produce of water, including fish, shellfish and algae. For oysters, this process begins when selected oysters are allowed to spawn in nurseries. The resulting microscopic animals attach to bits of gravel or broken shells, which is where they will grow for two months. When the seed oysters are about $\frac{1}{4}$ - $\frac{1}{2}$ inch long, they can be distributed to oyster farmers.

Until recently, aquaculture farmers grew their oysters on the bottom of a plat of land they rented from the state. This practice is not used as often anymore for several reasons. The Bay is so polluted with algae blooms that the sunlight can no longer reach the bottom, so the oysters are having difficulty surviving there. The oysters need the sunlight to produce algae, its primary food source. Also, on the ground the oysters are much more susceptible to the diseases MSX and Dermo (discussed in more detail below). And perhaps most devastatingly, the leased areas were also plagued by poachers, who could steal the bounty of years of patience in only a few moments. Fortunately, new innovations in aquaculture have made raising oysters a profitable venture once again.

The new trend is raising the oysters in mesh bags that use floatation devices to remain at the top of the water. Being placed in the floats position the oysters perfectly in a zone

of algae, which they eat, and oxygen, which is also vital to their survival. The floats also help the oysters avoid their natural predators, crabs and cow nose rays, and have been shown to slow and even prevent the spread of disease. The floats also give the aquaculture farmer easy access for routine up-keep and sorting. Subsequently, the floats allow for an extreme increase in the number of oysters grown per area, from the Chesapeake Bay average of 12 1/2 oysters per acre to 1,000 oysters in only 30 square feet. The results of this form of aquaculture oyster farming are undeniable. The farmers are able to raise bigger, healthy oysters in the same water that was previously inhospitable.

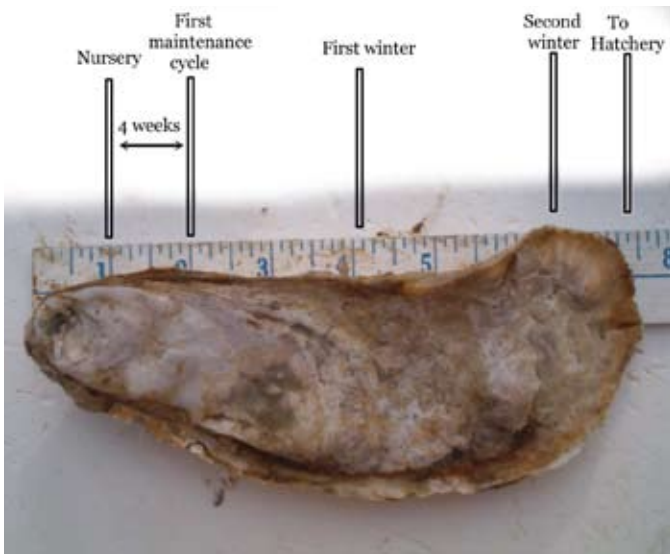


Richard Pelz, President/CEO of Circle C Oyster Ranch

At the forefront of aquaculture oyster farming in Maryland is Circle C Oyster Ranch, which is located in St. Mary's County, Maryland. Circle C utilizes 200 feet of dock and 3.2 acres of surface water to raise oysters from free swimming, microscopic larvae to market size oysters. Circle C raises its oysters in the Floating Oyster Reef, which was designed by its CEO/President, Richard Pelz. The Floating Oyster Reef is a series of PVC pipes fitted into a rectangular shape with a mesh bag attached in the center. Each reef contains approximately 1,000 to 1,500 oysters and holds them just inches below the surface of the water.

Mr. Pelz has been a true pioneer in the aquaculture field. He incorporated the Circle C Oyster Ranchers Association in 1992 and currently sits on the Maryland Oyster Roundtable, the American Farm Bureau Federation Aquaculture Advisory Commission and the Maryland Farm Bureau

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Growth rate of oyster

Aquaculture Advisory Committee. Mr. Pelz was integral in the creation and passing of the Maryland tax credit, which enabled individuals to participate in aquaculture oystering for little or no cost. He is also the holder of two patents, one relating to oyster's ability to filter nutrients and nitrates and the other relating to the clam's ability to filter biological weapons. Mr. Pelz has devoted his life to sharing the benefits of aquaculture oysters with the region.

One of the less obvious benefits of aquaculture oysters is the ability to selectively breed. Aquaculture farmers like Mr. Pelz are able to breed the oysters to be disease resistant, to grow quickly or have any number of other desirable attributes. In Maryland, the law requires that an oyster needs to be three inches long to be removed from the Bay. Studies have shown that taking the biggest (i.e., genetically the best) of a species will result in a weaker, smaller species because only the smaller, potentially diseased specimen are left to breed. Mr. Pelz has reversed this trend by selecting only the biggest and the best oysters to breed.

Over the last fifteen years, Circle C has been perfecting its strain of eastern oyster, the Lineback[®]. The Lineback[®] has been selectively bred for a fast growth rate, disease resistance, a thin shell and a deep cup shape. The result is that Circle C is able to raise an oyster from spawn to market in only 18 months. In addition, Circle C's oysters average about thirty-two percent more meat than the same size wild oyster and the thin shell can be opened by trimming the edges with scissors. Circle C sells their selectively bred oysters to individuals and to restaurants in the area.

In selectively breeding, Mr. Pelz is also combating another big threat to oyster health, disease. Specifically two parasites, which are harmless to humans but deadly to oysters in their first two years of life: MSX (*Haplosporidium nelsoni*), which thrives in higher salinity brought on by dry years,

and Dermo (*Perkinsus marinus*), which tolerates low salinity and is therefore the more damaging to the oyster population. The EPA reports that all productive oyster beds in the Chesapeake Bay have been infected by Dermo. Evidence in recent years has suggested that oysters which survive the onslaught of the diseases MSX and Dermo can pass that trait on to new generations. Mr. Pelz has attempted to breed oysters that are resistant to the parasites by shipping his best specimen to Virginia to have them exposed to the disease. The oysters that prove resistant to the parasite are bred into his oyster line. Also by creating a faster growing oyster he avoids the disease because the oysters grow to market size before they would succumb to the disease.

Before their great decline in population, the oysters in the Bay could filter the nutrients and nitrates out of the entire Bay, approximately 19 trillion gallons of water, in a week. Today, it would take the remaining oysters more than a year. If more widely utilized, the ability to raise healthy oysters in large quantities in unobtrusive floats is bound to decrease the pollution in the Bay.

Mr. Pelz has had astounding results where he operates his floats in St. Jerome Creek. When Mr. Pelz first arrived on the creek, he couldn't see to the bottom, he never spotted any crabs in the area and there were few waterfowl. Mr. Pelz and a friend spent five hours fishing off the dock and only caught two small fish. Since then, he and his friends have received nine citations from the Department of Natural Resources fishing contest for the size of the fish caught off the dock. Mr. Pelz's neighbors have testified at public hearings that the crabs and birds have returned to the cove. In fact, during a record low season Mr. Pelz was able to hop into the creek and simply grab crabs for dinner. He says that "[t]hey used to be knee deep in black muck and now we make footprints in the sand." Mr. Pelz's portion of the creek is so much cleaner than the surrounding areas that it has drawn attention from crab educational boats, kayakers and other boaters.

Given all the environmental benefits aquaculture farming has on the Bay, government subsidies should be offered to aquaculture farmers. By itself, running an aquaculture farm is not the most lucrative job. However, if the farmers could get subsidies for all the spillover benefits his farm has on the health of the Bay, more people might consider doing it. The subsidies would go a long way towards encouraging aquaculture, which would make the Bay a healthier environment for the inhabitants of the Bay and the people eating them.

The aquaculture oyster could have an even bigger impact on the environment if it is utilized commercially in the impending nutrient trading system. Nutrient trading is the transfer of nutrient reduction credits between companies

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THE CLEAN WATER ACT: A BLUEPRINT FOR REFORM

By Shana Campbell Jones '03

Shana Campbell Jones is a policy analyst with the Center for Progressive Reform (www.progressivereform.org), a think tank comprised of more than 50 member-scholars from across the United States, and is the co-author of CPR's The Clean Water Act: A Blueprint for Reform. In May, CPR co-hosted a brown bag lunch in Washington D.C. on the Blueprint with American Rivers, thanks to the efforts of Katherine Baer '04, Director of American Rivers' Healthy Waters Campaign.

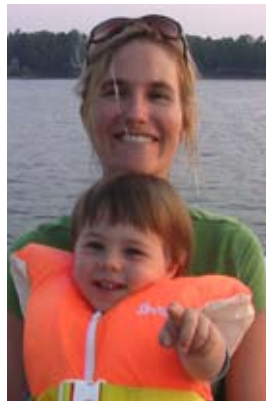
The 1972 passage of the Clean Water Act (CWA) marked an important milestone in the nation's environmental history. Motivated by public outrage at oil spills covering hundreds of square miles, massive fish kills due to pollution, and rivers so laden with pollutants that they actually caught fire, Congress adopted the measure, overriding the veto of President Richard Nixon.

For its time, the bill was revolutionary, and in the years since, it has done much to clean up the nation's waterways. The volume of pollutants discharged from factories and sewage treatment facilities has decreased significantly. Though we continue to lose wetlands, the rate of yearly wetlands loss has decreased. And the most important measure: many, but not all, of the nation's waterways are cleaner today than they were when the CWA was passed.

While the law has accomplished much, much more remains to be done. Almost half of the nation's waters are still "impaired," which is to say that they are too polluted to support the uses authorities have identified for them—to serve as sources of drinking water, recreational areas, or to support fish and wildlife. Wetlands continue to be lost to pollution and development. Non-point source pollution—runoff from farms, construction sites, and roads, for example—is the leading cause of water pollution today, but it is inadequately addressed by the CWA. Industrial facilities, meanwhile, are discharging toxics into sewer systems that then pass into waterways. In addition, the nation's wastewater infrastructure is aging and showing its wear. All the while, enforcement has declined, particularly in the last few years. Since 2001, two Supreme Court decisions—*Rapanos* and *SWANCC*—have thrust the CWA into the spotlight, paring back the CWA's protection of wetlands and other waters.

It is long past time for action to update the Clean Water Act. Since it was originally passed, the CWA has only been significantly amended twice, and the last time was more than 20 years ago. Many of the challenges facing clean water advocates today stem from the fact that the CWA is a relic from a previous era of environmentalism. Accordingly,

as part of its Achieving a New Progressive Agenda initiative, the Center for Progressive Reform (CPR) proposed a project to design an affirmative and comprehensive reform of the CWA. *The Clean Water Act: A Blueprint for Reform* is the work product that resulted from this project.



Shana Jones and son Andrew



Bill Andreen

CPR's *Blueprint* maps out a series of short- and long-term proposals for retooling the CWA. The proposed reforms are guided by these principles: technological innovation is the best response when pollution controls are needed; polluters must install state-of-the-art controls to prevent pollution from harming our waters and public health; planning, without accountability, is not enough, because voluntary approaches do not achieve measurable results; investing in wastewater infrastructure is crucial if we are to keep pace with the water quality gains the CWA has made and prepare for extreme weather events caused by climate change; and that government must aggressively enforce the CWA if it is to work as designed. Some of the *Blueprint's* proposals include:

- Redouble monitoring to identify impaired waters, and strengthen controls on pollution affecting those waters;
- Strengthen protections for wetlands, particularly with an eye toward the effects of climate change;
- Beef up protections against nonpoint source pollution;
- Hold federal facilities, including the Departments of Defense and Energy, accountable for the pollution they and their contractors create;
- Amend the CWA to undo the damage from Supreme Court decisions narrowing its reach;
- Provide additional funding for water treatment, water quality monitoring, and for federal monitoring and enforcement; and
- Develop green infrastructure as a means to mitigating stormwater pollution.

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As a policy analyst for CPR, I have been fortunate enough to work on such an interesting project with such dedicated and knowledgeable people. The *Blueprint* has turned out to be an extraordinary document in several ways. Most importantly, the *Blueprint* is informed by the very best scholarship addressing the CWA. The project was

“The reforms proposed in the *Blueprint* not only address existing problems, but also lay the groundwork to prepare for new problems that climate change will create.”

directed by CPR member scholar Bill Andreen, Professor of Law at the University of Alabama School of Law, and one of the top CWA experts in the country. The *Blueprint* also drew from a steering committee of ten CPR scholars and leading CWA experts. National water advocates also provided valuable insight.

In addition, the *Blueprint* looks at the CWA comprehensively, presenting specific and meaningful reforms for the entire Act. As far as CPR is aware, the *Blueprint* is the most comprehensive proposal for CWA reform that has been released since Robert Adler’s book on the CWA, which was published more than fifteen years ago (Robert Adler is also a CPR member scholar). It is certainly the most comprehensive resource on the CWA available online. As such, a robust and up-to-date resource on the Act is now available to support environmental advocates as well as educate policymakers and their staff. Certainly, a complete overhaul of the CWA is unlikely to happen unless the political climate radically changes, but CPR believes well-researched and scholarly-supported documents such as the *Blueprint* are crucial to respond to the anti-regulatory policy work sup-

ported by conservative institutions and think tanks. Our belief has been reinforced by the enthusiastic reception the *Blueprint* has received from the environmental community. By necessity, most environmental advocates spend their time ensuring that existing protections are not rolled back. Policy proposals to support positive and comprehensive reforms are sorely needed.

Finally, the reforms proposed in the *Blueprint* not only address existing problems, but also lay the groundwork to prepare for new problems that climate change will create. CPR knows of no other policy document that has begun to address climate change in the CWA context. Climate change threatens to further stress existing water resources and the ecosystems that depend upon them. Competition for water among agricultural, municipal, industrial, and ecological uses will increase. Rising sea levels will threaten already vulnerable salt marshes and other coastal habitats. Heavy precipitation caused by extreme weather events will increase sewer overflows, degrade water quality, and increase the likelihood of water-borne disease. The aging CWA is not prepared to address these issues.

Americans care about clean water—indeed, more than half of Americans view access to clean water as a right. But the vast majority is concerned, and for good reason, that the nation’s waterways will not be clean enough for their children and grandchildren. The United States has ample reason to take the next critical step to protect its waterways. Accordingly, *The Clean Water Act: A Blueprint for Reform* works to establish an affirmative agenda for clean water that builds upon the CWA’s success and learns from its failures, while making needed reforms to bring the Act into the 21st century. The *Blueprint* is available on CPR’s website at www.progressivereform.org/cleanwater.cfm.

Gordian Unknotting

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and the other two branches of government. All of which puts the American environmental state on a political rollercoaster, rising and falling at predictable intervals and with little overall coherence. Steinzor’s remedy is to give EPA more tools and more insulation. Perhaps these solutions would work, but if the agency is determined not to protect the public health greater deference to its decisions may turn out to be an unwelcome shield. Some have suggested, oppositely, that we should abandon EPA altogether and require Congress to make the hard call on contaminants that it has delegated to the agency. Unfortunately, Congress’s

inability to make such a call even on automobile fuel efficiency standards provides little encouragement here. For the short term, the best we may be able to hope for is a new administrative day.

Oliver Houck is Professor of Law at Tulane University in New Orleans, Louisiana.

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AN EXTERN'S PERSPECTIVE: OBSERVATIONS FROM A SUMMER AT EPA

By Patience Burke '09

I arrived at the Environmental Protection Agency (EPA) with certain preconceived notions about what I was going to see. I wanted to work there and to learn how it operated, but in my mind EPA was this big government agency whose creed was to protect the environment, but whose habit was to fall short on those expectations. That was not a fair generalization—as I discovered, there is no one “EPA.” It is composed of many different offices, each with its own distinct personality. By personality, I mean that each office tends to have certain predispositions towards the types of enforcement actions it supports and the length at which it is willing to take a legal argument on behalf of environmental protection. These tendencies develop because of a range of influences such as the role assigned to a given office, fluctuations in political will, the leadership ability of the managers, or even the personal convictions of attorneys and inspectors working cases.

During my summer, I was exposed to a number of offices, but my position was with the U.S. Environmental Protection Agency Headquarters in Washington D.C., where I worked in the Office of Enforcement and Compliance Assurance within the Office of Civil Enforcement’s Water Enforcement Division. Or, in government lingo, I worked for EPA HQ in DC in OECA within OCE’s WED. Although I was based in OECA, I also worked with attorneys from the Department of Justice (DOJ), who, although they are not actually within an office of EPA, are responsible for trying enforcement cases that are initiated as court proceedings or that go beyond the administrative action stage. DOJ sometimes gives input into administrative enforcement actions when it thinks that there is a good chance they will be taken to judicial proceedings. This gives DOJ an enormous amount of power over the cases that OECA brings, and clashes sometimes arise between the two offices over the sustainability of proposed enforcement actions.

Despite my uneasiness coming in, I really enjoyed the work I did this summer. I received tons of first hand experience developing cases, gathering evidence, and applying unsettled case law to environmental enforcement actions. It was rewarding. The trick, I found, was to not allow the heaviness that accompanies virtually everything one does in the government to weigh down my enthusiasm for protecting the environment. In other words, EPA has an enormous amount of power, authority, and resources, but along with that comes certain checks and cross-checks and forms and meetings and nay-sayers, etc. But despite those roadblocks, you can move forward. Persistence will get you a long way,

and you can find a way to make things happen.

With this in mind, I decided that I wanted to work on the emerging hot topic water issue of finding jurisdiction over water bodies after the *Rapanos* decision. *Rapanos* is the 2006 Supreme Court Clean Water Act case that was decided in a 4-1-4 split, and has left the environmental community frustrated and in some disagreement over what waters the case applies to and over what waters the Clean Water Act jurisdiction extends. I began by offering assistance to



From l to r:

EPA Senior Enforcement Counsel Mike Walker, Student Extern Patience Bosley-Burke, EPA Assistant Administrator for Enforcement, Grant Nakayama, and Student Extern Julie Grufferman.

attorneys working on cases with *Rapanos* issues, and soon after started writing briefs in support of jurisdiction over stream systems in order to convince decision-makers to take initiate enforcement actions.

I focused heavily on the arid stream systems of the western U.S. because they became the water systems most potentially at risk by the *Rapanos* decision. Through my research, I was able to identify an assortment of different ways to establish jurisdiction under the “significant nexus”

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test of Justice Kennedy’s opinion, the one most employed by the courts amongst the several tests that came out of *Rapanos*. I referenced publications by universities, non-profits, and government agencies on the science of arid stream systems and the history of the region. This allowed me to make cases for jurisdiction based on either the environmental connections between a tributary and a traditionally navigable water or historical facts that would make the water a jurisdictional traditionally navigable water in its own right. I loved this work as it allowed me to end the summer feeling that I had really contributed to important work being done at the federal level.

For an internship at EPA, there is no better person to talk to than Mike Walker. Mike is an adjunct professor of Natural Resources Law at the School of Law, and is Senior Enforcement Counsel for EPA Headquarters in D.C., for which he brings in about one hundred interns each year to work for school credit or as paid employees. He frequently gives presentations on resume building and job searching at the School of Law, and also works many of the local job fairs for which EPA has a table. Go speak with him and listen to what he has to say. You would be hard pressed to find anyone outside of our full time Environmental Law Program faculty and staff that will go to greater lengths to help you in advancing your career.

Once you get in, the experience you have will be based in large part on what you make it. Be proactive and speak up. Volunteer to take on projects that interest you. If your supervisor is working a case, offer to research one of the issues—you could get a great writing sample out of it. Get the work you want to give you the experience that you need to get that first job out of law school.

ABA Conference

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ers incentives to reduce their energy use. This could include creating a searchable database of homes’ energy use so potential buyers could investigate energy consumption, creating an incentive for sellers to improve the energy efficiency of their homes.

Margaret E. Rice, Deputy Commissioner of Permitting and Enforcement at the Department of Environment in Chicago, discussed how individual communities can contribute to solving the global climate crisis. She said that municipalities should take responsibility for reducing carbon emissions generated by their energy use, building and transportation policies. Local governments inevitably will be affected by the consequences of climate change, so it is in their interests to contribute to its solution. Rice cited LEED-certified buildings, clean transportation, energy efficiency and renewable energy portfolios as ways that municipalities can reduce their greenhouse gas emissions.

The final speaker, Seth Kaplan, Vice President for Climate Advocacy at the Conservation Law Foundation, discussed the interaction of federal and state environmental laws. He advocated use of federal environmental requirements as a “floor,” allowing for states to adopt more protective policies if they so choose. Kaplan criticized EPA’s rejection of California’s standards to control greenhouse gas emissions from motor vehicles. Instead of rejecting states’ higher standards, he said, the federal government should encourage states and municipalities that implement tough controls. While regional and national permitting schemes will conflict, Kaplan said these challenges are not intractable. He cited RGGI, which allows for auctioned credits to be transferred to the federal level, as an example of bridging the gap between state and federal regulatory schemes.

CLINICAL FELLOW JOINS MARYLAND’S ENVIRONMENTAL LAW CLINIC

Tina Meyers has joined Maryland’s Environmental Law Clinic as its first Clinical Fellow. Tina is a *magna cum laude* graduate of SUNY–Buffalo Law School, where she received a certificate of concentration in Environmental Law. Tina has a B.S. in Environmental Science and a B.A. in Biology from the University of Rochester.

As a Clinical Fellow, Tina will work closely with Professor Jane F. Barrett, director of Maryland’s Environmental Law Clinic, and clinic students on environmental issues of state and national significance. Maryland’s clinic is a full-service operation that develops student advocacy skills through litigation, legislative work, rulemaking, counseling, and negotiation. The new Clinical Fellow position was made possible by a generous grant from the Keith Campbell Foundation.

TWENTY-EIGHT GRADUATES RECEIVE ENVIRONMENTAL CONCENTRATION AT MAY 2008 GRADUATION



Back row left to right: Jonathan Cheng, Thomas Prevas, Joshua Schultz, David Rosen, Michael Wright, Jason Zappasodi, Todd Hesel, Jeremy Scholtes, Van Hilderbrand, Mathew Swinburne.

Middle row left to right: Phillip Hummel, Brendan Fitzpatrick, Tokesha Collins, Lewis Taylor, Professor Robert Percival, Jennifer Sweigart, Heidi Price, Professor Rena Steinzor.

Front row left to right: Ian Ullman, Coordinator Laura Mrozek, Dean Karen Rothenberg, Alleen Yu, Jayni Shah Lanham, Sheena Flot, Christine Jochim Boote, Anna Kuperstein.

Not Shown: Professor Jane F. Barrett, Sylvia Berry-Lewis, Lauren Charney, Carrie Durham, Erin Miller, Lauren Morris, and Eva Yu.

Highlights of 2008 Graduates

Lauren Charney recently began her new job with the Environmental Protection Agency, Region 2, Office of Regional Counsel, New York/Caribbean Superfund Branch in New York City. Lauren spent her last semester of law school as a full-time intern with this branch and was offered a permanent position upon the completion of her internship in May. In her position as law clerk (and then as Assistant Regional Counsel after she passes the bar exam), Lauren works on cases arising under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Emergency Preparedness and Community Right-to-Know Act (EPCRA) within New York, Puerto Rico, and the U.S. Virgin Islands.

Christine Jochim Boote graduated in May 2008 with a concentration in environmental law. This fall, she will complete a master of public health in environmental and occupational health from the University of Maryland School of Medicine. She then will start work in the Office of General Counsel at the US Nuclear Regulatory Commission in their Honor Law Graduate program. During law school, Christine greatly benefited from the opportunities made available to her through the Environmental Law program. She served as an extern in the Department of Justice, Environment and Natural Resources Division, Environmental Crimes Section, and as a student attorney in the Environmental Law

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Clinic. Christine also was active in the Maryland Environmental Law Society (MELS), serving first as co-chair for the Recycling and Institutional Eco-Development Committee, and then as co-executive.

Lewis J. Taylor graduated *magna cum laude* with the Environmental Law Certificate in May 2008. A Leadership Scholar at the School of Law, Lewis was supported in pursuing his environmental public interest goals by the Environmental Law Program. At graduation, Lewis received the William P. Cunningham Award for outstanding service to public interest law. Lewis worked as a research assistant for Professor Percival and helped organize an international conference on Environmental Clinical Legal Education at the law school in 2007. He also worked as a legal intern at the Department of Justice (ENRD), the Environmental & Public Works Committee of the U.S. Senate, and for Judge Richard Bennett of the U.S. District Court for Maryland. As a student attorney in the Environmental Law Clinic, Lewis

gained valuable experience while representing non-profit clients. Currently, Lewis is an associate in the environmental practice group at Venable LLP in Baltimore.

Jayni Shah Lanham graduated in May 2008 with a concentration in environmental law. This fall, she began working as an associate with Beveridge & Diamond, PC. During law school, Jayni served as an extern with the Maryland Office of the Attorney General at the Maryland Department of the Environment, and as a student attorney in the Environmental Law Clinic. During the summers she worked with the Maryland Office of the Attorney General at the State Highway Administration and with Beveridge & Diamond, P.C. In addition, Jayni gained experience in international environmental advocacy as a member of the University of Maryland's team in the Stetson International Environmental Moot Court Competition. Jayni also was active in the Maryland Environmental Law Society (MELS), serving as treasurer.

A Sabbatical Report

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stores. "Banana's Fault" urges people to be more careful about their disposal of garbage by following the path of a discarded banana peel. The films demonstrated great creativity and effort on the part of the students.

During the last half hour of my final class, Professor Wang Canfa appeared, carrying the Olympic torch he had carried as an official torch-bearer in Guizhou the previous Friday. At the end of class he gave a long and emotional thank you to me, which was followed by individual students taking turns expressing their thanks. I was really moved. We all posed for photos with the Olympic Torch and Professor Wang then took me out to dinner along with some other faculty.

While in China I had several visitors from the U.S., including my wife who spent ten days with me in April, my niece who spent a week in May, and my daughter Marita who came in July after both of our classes were over. Marita and I flew to Chengdu to visit the Chengdu Research Base of Giant Panda Breeding, the most successful captive breeding program for pandas in the world. Marita was given an opportunity to hold a panda cub, 8-month old Shu Ling. From Chengdu we flew to Lijiang where we visited Jade Dragon Snow Mountain, an 18,000 foot peak with a tram we took to the 14,000-foot level. We also visited Tiger Leaping Gorge, a 9-mile long canyon—one of the deepest

in the world—that is formed by the Yangtze River. It is one of the few places in China where environmentalists have been successful (for now) in stopping a plan by the Chinese government to build a dam. Marita and I hiked along a three-mile trail cut out of the side of a sheer cliff to the most dramatic point in the gorge where the tiger allegedly leapt over the rocks to give the gorge its name.

My sabbatical is now over and I am back teaching at Maryland, but I plan to continue to do whatever I can to advance environmental protection in China. Just before leaving China I had an opportunity to give a luncheon talk at the Natural Resources Defense Council's Beijing office, which is greatly expanding its work on Chinese energy issues. As soon as my classes are over in December, I plan to return to China for a reunion with my Chinese students and to host a "Golden Tree" awards ceremony for the student filmmakers. I am delighted that Professor Joel Eisen from the University of Richmond will follow in my footsteps by teaching environmental courses at CUPL as a Fulbright scholar in spring 2009.

Grow an Oyster

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that are emitting more nutrients than they are prescribed by law and entities that are emitting less than their share so they can sell their credits. Nutrient trading has been used in Virginia since 2005 and was adopted by Pennsylvania in September 2006. The Maryland Departments of the Environment, Agriculture, and Natural Resources, in conjunction with the Patuxent River Commission have been exploring the development of a nutrient trading program in Maryland since March 2003. If a nutrient trading program is eventually adopted in Maryland, the potential for aquaculture increases exponentially.

In anticipation of nutrient trading, Mr. Pelz has patented the oyster's natural ability to filter nutrients and nitrates from the water. He plans to offer the services of his oysters as an alternative to waste water treatment plants. Virginia Tech was given a \$540,000 grant to administer a three year program to test Mr. Pelz's theories. Mr. Pelz anticipates that he will be able to offer the same pollution removal for hundreds of dollars, while the waste water treatment plants will be charging thousands. He estimates that each float of three inch oysters can filter out approximately 2.2 pounds of nitrogen and phosphorus combined, specifically 1.77 pounds of nitrogen and 1.43 pounds of phosphorus. The possibilities are almost limitless.

For the individual, the benefits of aquaculture oysters are abundant and free of charge. Mr. Pelz conducted a survey that showed that 90% of people were interested in having aquaculture oyster floats, but no one was willing to pay anything for it. Tony O'Donnell introduced a bill for

a \$500 tax credit for the purchase of supplies for aquaculture oyster floats. It passed through the House and Senate unanimously. The tax credit has allowed Mr. Pelz to design a way to get three floats, complete with his selectively bred oyster seed to the individual for no charge. He estimates there might be fifteen minutes of maintenance required to raise the oysters to market size (each float has to be flipped over). In around 18 months, the individual should have at least four and a half bushels of oysters, worth around \$675 or several delectable oyster roasts. Alternately, people without a taste for oysters can just leave them in the floats. The oysters should live for up to 8 years and will spawn every year.

Whether you are interested in the free meals or the environmental impact, there does not seem to be a downside to aquaculture oysters. Aquaculture oysters are essentially a mobile natural filter that can be used to clean harmful nutrients and nitrates from the Chesapeake Bay. In the age of impending nutrient trading in Maryland, oyster filters would be a cost effective alternative to expensive waste water treatment plants. It is also becoming a lucrative industry to raise and export the oysters to restaurants. A cleaner Bay would also mean more natural oysters, which used to be the most valuable commercial fishery in the Bay. With so many positive attributes, it's hard to believe that this practice is not more widely used.

Laura Pacanowsky graduated in 2007 from the School of Law with an Environmental Certificate. She is currently a member of the business transactions group at Venable LLP.

Chinese Environmental Law

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environmental policy has evolved from ad hoc efforts to relocate polluting industries to emphasis on end-of-the-pipe pollution controls, followed by efforts to encourage process changes to achieve source reduction. To achieve truly dramatic changes in environmental conditions, China will have to integrate environmental concerns more closely into its energy, land use, transportation, housing and tax policies that often affect environmental conditions far more than environmental laws and regulations. China has adopted ambitious plans to improve energy efficiency, reduce pollution, and produce more energy from renewable sources. But it also has demonstrated that it is much easier to adopt plans and environmental laws than it is to develop the supporting

institutions—such as strong NGOs, effective administrative agencies, an independent judiciary, an environmental bar, and an informed public—that are necessary to ensure their effective implementation and enforcement.

This article is adapted from Robert V. Percival, "Environmental Law in China," Paper Presented at "The ABA Environment, Energy and Resources Law Summit: 16th Section Fall Meeting," Phoenix, Arizona, September 18, 2008.

FACULTY ACTIVITIES

Robert Percival

Publications

“The Challenge of Chinese Environmental Law,” 10 *International Environmental Committee Newsletter* 2 (August 2008).

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“21世••境法展望”(Environmental Law in the 21st Century), in *International Environmental Law and Comparative Environmental Law Review* 204 (Wang Xi ed. 2008) (translation into Chinese by Professor Li Yanfang).

“*Massachusetts v. EPA*: Escaping the Common Law’s Growing Shadow,” 2007 *Supreme Court Review* 111 (2008).

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“Environmental Law in the Twenty-First Century,” 25 *Virginia Environmental Law Journal* 1 (2007).

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“El Surgimiento del Derecho Ambiental Global,” Cuartos Jorandos Nacionales de Derecho, “Desarrollo Sustentable: Gobernanza y Derecho,” University of Chile School of Law, Santiago, Chile, June 25, 2008 (paper presentation).

“The History and Future of Global Environmental Law,” Natural Resources Defense Council, Beijing, China, June 18, 2008.

“Environmental Law Teaching and Pedagogy,” Workshop on Environmental Law Teaching and Research Capacity Building, Holiday Islands Hotel, Guangzhou, China, June 14, 2008.

“NGO Development and Information Transparency in China,” China Roundtable, Advanced Micro Devices, Austin, Texas (appeared by video conference from AMD’s office in Beijing, China), June 12, 2008.

“Environmental Law Teaching and Pedagogy,” Environmental Law Teaching and Research Roundtable, Beijing Friendship Hotel, Beijing, China, June 8, 2008.

“Inside the Supreme Court: Impressions from a Former Law Clerk,” Seminar on the Jurisprudence of Judge Richard Posner, China University of Political Science and Law, Beijing, China, June 4, 2008.

“The Emergence of Global Environmental Law,” China University of Geosciences, Beijing, China, May 29, 2008.

“Energy and the Environment: The Pursuit of a More Sustainable Path for U.S. Energy Policy,” Renmin University School of Law, Beijing, China, May 28, 2008.

“The Emergence of Global Environmental Law,” Southwest University School of Law, Chongqing, China, May 22, 2008.

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“A Brief History of the Common Law of Environmental Protection,” Southwest University School of Law, Chongqing, China, May 22, 2008.

“The Emergence of Global Environmental Law,” Shanghai University of Finance and Economics, Shanghai, China, May 9, 2008.

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“The Role of the Judiciary in the U.S. Legal System,” Northwest University School of Law, Xi’an, China, May 6, 2008.

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Discussant: “Permitting and Trading in U.S. Environmental Law,” Environmental Regulation Roundtable, Tsinghua University, School of Public Policy and Management, Beijing, China, April 13, 2008.

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“The Role of the Media in Environmental Enforcement,” Asian Environmental Compliance and Enforcement Network, Beijing, China, December 14, 2007.

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“Public Interest Litigation,” Seminar on Public Interest Law, Peking University School of Law, Beijing, China, December 2, 2007.

“China’s Role in the Development of Global Environmental Law,” International Forum on Environmental Law and Sustainable Development, National People’s Congress Conference Center, Beijing, China, December 1, 2007 (paper presentation).

“The Emergence of Global Environmental Law,” Qingdao University Faculty of Law, Qingdao, China, November 29, 2007.

“How Safe Is ‘Safe’?” Qingdao University School of Graduate Studies, Qingdao, China, November 29, 2007.

“The Globalization of Environmental Law,” Environmental Speakers Series, Michigan State University, East Lansing, Michigan, November 8, 2007.

“Escaping the Common Law’s Shadow: Massachusetts v. EPA,” Environmental Law Research Workshop, Georgetown University Law Center, Washington, D.C., November 7, 2007 (paper presentation).

“Environmental Law in the Supreme Court,” 15th Section Fall Meeting, American Bar Association Section of Environment, Energy and Resources, Pittsburgh, Pennsylvania, September 28, 2007 (paper presentation).

“Enforcement of the Clean Water Act After Rapanos v. United States,” The Federalist Society, Dirksen Senate Office Building, Washington, D.C., September 6, 2007.

Rena Steinzor

Publications

Capture, Accountability, and Regulatory Metrics, 86 *Texas Law Review* 1741 (2008) (with Sidney A. Shapiro).

MOTHER EARTH AND UNCLE SAM: HOW POLLUTION AND HOLLOW GOVERNMENT HURT OUR KIDS (University of Texas Press, 2007).

Will Superfund Rise Again?, 23 *Environmental Forum* 28 (2007).

“The People’s Agent: Executive Branch Secrecy and Accountability in an Age of Terrorism,” 69 *Duke Journal of Law & Contemporary Problems* 99 (2006) (with Sidney Shapiro).

“The Legacy of John Graham: Strait-Jacketing Risk Assessment,” *Risk Policy Alert*, May 23, 2006.

RESCUING SCIENCE FROM POLITICS: REGULATION AND THE DISTORTION OF SCIENTIFIC RESEARCH, (Wendy Wagner and Rena Steinzor, eds.) (Cambridge University Press, 2006).

Other Activities

Legal Advisor, Mayor’s Sheila Dixon’s Taskforce on Swann Park.

Jane F. Barrett

Publications

Book Chapter, “Litigation of Environmental Criminal Cases” ABA ENVIRONMENTAL LITIGATION: LAW AND STRATEGY, (American Bar Association, 2008) (co-author).

CRIMINAL ENFORCEMENT OF ENVIRONMENTAL LAWS (with W. Hamel and S. Solow) (Oxford University Press, forthcoming).

Presentations

“Field Investigation – Identification, Documentation and Reporting,” Get the Dirt Out Chesapeake Training Conference, Waterkeepers Chesapeake, February 29, 2008, University of Maryland School of Law.

Moderator, “Climate Change and Maryland Legislation” and “Climate Change and the Law” panels, Focus the Nation Teach-In, January 31, 2008, University of Maryland School of Law.

“Overview of Maryland State and Local Government Implementation of Clean Water Act Stormwater requirements” and “Designing and Executing an Industrial Stormwater Compliance Survey,” Waterkeepers Chesapeake Stormwater Conference, November 12-13, 2007, University of Maryland School of Law.

“Legislative, Litigation and Regulatory Approaches to CAFO Pollution,” Waterkeeper Alliance Poultry Summit, November 1, 2007, Salisbury, Maryland.

“New Developments & Emerging Enforcement Initiatives in Environmental Law,” ALI-ABA Environmental Crimes Conference, October 4-6, 2007, Washington, D.C.

Other Activities

Advisory Board Member, BNA White Collar Crime Report.

Member, Maryland Attorney General’s Advisory Council for the Environment.

Member, American Bar Association Gatekeeper Task Force.

MARYLAND LAW HOSTS VISITING UGANDAN ENVIRONMENTAL LAW SCHOLAR

During the fall semester 2008, the University of Maryland Environmental Law Program is hosting visiting environmental law scholar Emmanuel Kasimbazi from Uganda. Professor Kasimbazi is on the Faculty of Law at Makerere University in Kampala, Uganda, and is one of the top environmental law scholars in Africa. Professor Kasimbazi did his undergraduate work at the University of Dar as Salaam and obtained an LL.M. in Environmental Law from the University of Calgary in 1995. He currently is the President of the East African Association for Environmental Impact Assessment, and the Vice President of the Association for Environmental Law Lecturers in African Universities. A member of the IUCN Commission on Environmental Law, Professor Kasimbazi has extensive experience in environmental law, energy law, water law, and forestry law. He has consulted for many national and international agencies, including the World Bank, the African Development Bank, the United Nations Environment Programme, and the European Union.



Prof. Kasimbazi (left) with Prof. Percival

Professor Robert Percival, director of Maryland's Environmental Law Program, first met Professor Kasimbazi when Percival presented an Environmental Law Workshop in Uganda in 1999, sponsored by the American Bar Association's African Law Initiative. "It was immediately clear to me that Professor Kasimbazi was a first rate scholar," said Percival. "We are delighted to be able to host him as a visiting scholar with Maryland's Environmental Law Program." Professor Kasimbazi will be studying Maryland's Program as a model for developing a similar program at Makerere University. His visit is funded by the J. William Fulbright Program under a grant administered by the Council for International Exchange of Scholars. Professor Percival hopes to learn more about African environmental law from Professor Kasimbazi to assist with the preparation of Percival's casebook on "Global Environmental Law."

Professor Kasimbazi will be in residence at the law school through the end of January 2009.

This newsletter is published by the University of Maryland Environmental Law Program. Contributors to this newsletter include faculty, alumni, students, and friends of the Environmental Law Program.



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