## AGRICULTURE AND THE ENVIRONMENT: INTRODUCTION TO THE CONFERENCE ISSUE

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On March 8, 2002, the U.C. Davis Environmental Law Society held its 16th Annual Environmental Law Conference, in cooperation with Environs, the U.C. Davis Environmental Law and Policy Journal; the Agricultural Law Society; and La Raza Law Students Association. The annual conference, begun under the leadership of Professor Harrison (Hap) Dunning, has been an important event at the U.C. Davis School of Law since 1987, but this year marked a departure from the past in two significant respects. With Dean Rex Perschbacher and the School of Law providing generous financial assistance, we were able to bring in several nationally-recognized speakers from beyond Northern California. And with the hard work of the student staff of Environs, we are now pleased and proud to publish many of the conference presentations in this volume.

The theme of this year's conference, the interface between agriculture and environmental protection, is particularly appropriate to this location. The sponsoring institutions are acutely aware of the benefits brought by modern agriculture, its environmental costs, and its economic struggle to maintain its place in the state and the nation. U.C. Davis, founded in 1905 as the University of California Farm, is recognized nearly one hundred years later as a world research leader in both agriculture and environmental science. The School of Law has been a leader in environmental law since that field was first recognized in the 1970s; this year our long-established Environmental Law Society was joined by a new student group with somewhat overlapping interests, the Agricultural Law Society. The geographic location is also an excellent fit for this topic. Davis sits in Yolo County, until recently the top tomato producer in the nation, and a place where suburban sprawl butts up against largescale agriculture. The residents of Yolo County, like those in many other places, seek to find a balance of agriculture and environmental protection. We are drawn to the pastoral appeal, open space, and link to our cultural history provided by agriculture. But we are worried about particulates in the air, nutrients and pesticides in the streams, and loss of wildlife habitat, and we can no longer ignore the role agriculture plays in those problems.

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This year's theme is also particularly timely. The conference was held during a period of intense negotiation on the 2002 Farm Bill, which eventually was signed into law as the Farm Security and Rural Investment Act of 2002. The fate of the farm bill demonstrated the political appeal of conservation as well as the political strength of the agriculture industry and the challenges of altering the status quo, which leaves many of the environmental impacts of agriculture essentially unregulated. The Act significantly increased funding for conservation programs, including payments and technical assistance to farmers who take sensitive land out of production or act to reduce pollution from their farms. At the same time, despite the opposition of the Bush administration and the potential to spark an international trade war, the Act substantially expanded agricultural subsidies, repudiating the 1996 Farm Bill's commitment to phasing subsidies out in order to move toward more sustainable agricultural policies. Environmental groups cheered the increase in conservation programs, but deplored the subsidies.

Nonetheless, this spring marks a new interest in regulating the environmental impacts of agriculture. Farmers have long enjoyed exemptions from a variety of environmental laws. As other sources of air and water pollution have gradually been controlled, the environmental impacts of farms have become increasingly apparent. Regulators, on both the state and local level, now appear poised to impose pollution controls on agricultural operations, essentially for the first time.<sup>2</sup>

In a larger sense, the theme of the relationship between agriculture and the environment is timeless. As Jim Chen has put it, agriculture is "the most palpable link between humanity and nature." We should hardly be surprised, therefore, to find that agriculture has frequently been the focus of societal battles about the appropriate relationship between persons and nature. The political, economic, and social power of agriculture has sometimes helped win great environmental benefits. In the 1880s, when farmers joined with urban dwellers to oppose hydraulic mining in California because of its impacts on streams, for example, they succeeded in persuading the state Supreme Court to effectively ban the practice. More recently, however, environmentalists and agricultural in-

<sup>&</sup>lt;sup>1</sup> Pub. L. No. 107-171 (2002).

<sup>&</sup>lt;sup>2</sup> See, e.g., Chris Bowman, Farmers Feel Clampdown on Pollution, SACRAMENTO BEE June 2, 2002, at A1 ("After decades of protection from costly environmental controls..., California farmers are being held accountable for their pollution: sputtering tractors, irrigation pumps, pesticides, fertilizers, manure and more.").

<sup>&</sup>lt;sup>3</sup> Jim Chen, Of Agriculture's First Disobedience and Its Fruit, 48 VAND. L. Rev. 1261, 1262 (1995).

<sup>&</sup>lt;sup>4</sup> See, e.g., Harry N. Scheiber, Public Rights and the Rule of Law in American Legal History, 72 Cal. L. Rev. 217, 239 (1984); Harrison C. Dunning, Revolution (and Counter-Revolution) in Western Water Law: Reclaiming the Public Character of Western Water Resources, 8 FORDHAM ENVIL. L. J. 439, 442 n. 14 (1997).

terests have frequently found themselves on opposite sides, arguing about property rights, protection of wildlife, water quality, air pollution, and an array of other issues. As the theme of this conference suggests, the disputes ultimately come down to a search for sustainability: farmers want to ensure that their way of life can be sustained for themselves and their successors, while environmentalists focus on sustaining the land and resources for a broader public. Perhaps the key question for society is not which vision to embrace, but whether we can have both, creating working landscapes that integrate into a healthy natural world.

Disputes involving agriculture and the environment have been frequent and varied over the last several years. The organizers of the conference decided to focus on three issues, each of special importance in California today and at the same time reflective of the broader topic: the allocation of water between agriculture and environmental protection; agricultural impacts on water quality, and their regulation; and the connections between agriculture and environmental justice. The papers in this issue are drawn from panel discussions on those three topics. Other speakers at the conference included Mark Rey, Under Secretary for Natural Resources and Environment at the U.S. Department of Agriculture; Joseph L. Sax, James H. House and Hiram H. Hurd Professor of Environmental Regulation (Emeritus) at U.C. Berkeley's Boalt Hall School of Law; Thomas Birmingham, General Manager and General Counsel of the Westlands Water District; Keith Brackpool, President and Chief Executive Officer of Cadiz, Inc.; Romel Pascual, Assistant Secretary for Environmental Justice at the California Environmental Protection Agency; Luke Cole, Director of the California Rural Legal Assistance Foundation's Center on Race, Poverty & the Environment; Marion Moses, President of the Pesticide Education Center; Russell Eggert, a partner in the law firm Mayer, Brown, Rowe and Maw and lead counsel for plaintiffs in the case of *Pronsolino v. Marcus*, dealing with the applicability of Total Maximum Daily Loads (TMDLs) to nonpoint sources; and Tom Mumley, TMDL Coordinator at the San Francisco Regional Water Quality Control Board and Statewide TMDL Program Manager.

Rex Perschbacher, Dean of the U.C. Davis School of Law, and Michael Reid, Program Leader for Agricultural Productivity in the U.S. Division of Agriculture and Natural Resources, provide welcoming remarks and set the stage for what follows. Dean Perschbacher points out that agriculture is both the foundation of human civilization and the starting point for civilization's environmental impacts. Dr. Reid notes the importance, economic and social, of agriculture to California and the inevitable intertwining of economic and environmental sustainability in agriculture.

<sup>&</sup>lt;sup>5</sup> 91 F. Supp. 2d 1337 (N.D. Cal. 2000), aff'd 2002 WL 1082428 (9th Cir. 2002).

Taking up the issue of water allocation, Harrison Dunning notes that agricultural and environmental interests have been competing for water in California since the emergence of the modern environmental movement. Professor Dunning takes a hopeful view of the future, predicting that reductions in water-intensive, low-value agriculture and improvements in desalination technology may leave enough water for both environmental protection and sustainable irrigated agriculture.

Eileen Gauna notes the lack of scholarly attention so far paid to the environmental justice implications of agriculture. Using EPA's standards for worker re-entry into pesticide-treated fields as a case study, Professor Gauna demonstrates that the use of standard risk assessment assumptions, coupled with lax enforcement, have resulted in systematic underprotection of farmworkers and their families. She suggests that a radical shift in the regulatory focus, from controlling pesticide use to eliminating it, might allow substantial gains in environmental protection and environmental justice at relatively low cost.

Robert Adler and David Smith provide a provocative exchange on water quality and agriculture. Reviewing the history of nonpoint water pollution control, Professor Adler finds that agricultural pollution remains a serious national problem despite decades of attempts to control it. Looking to the future, he suggests that as things currently stand we are unlikely to achieve the lofty goals of the Clean Water Act. He offers three possible alternatives to that unsatisfactory status quo: application of technology-based effluent controls to nonpoint, as well as point, sources; effective application of TMDLs to agricultural pollution; or rethinking our entrenched national policy of crop subsidies and price supports, challenging others to decide which of those three is preferable or suggest others. EPA's David Smith takes up that challenge, defending TMDLs as the only politically or practically viable alternative and arguing that, with some fine tuning, TMDLs can be effective in addressing agricultural pollution.

J.B. Ruhl closes our volume, as he closed the conference, with a powerful appeal to dispel the myths of agriculture, recognize the environmental damage agriculture has caused, and demand that the industry bear the costs of that harm. Professor Ruhl concedes that traditional command-and-control style pollution regulation would be difficult to apply to small farms, but argues that informational strategies, market-based instruments, and carefully targeted subsidy programs can address conflicts between agriculture and the environment before they reach the crisis stage.

Taking the presentations as a whole, one message, though not expressed directly in any of them, comes through strongly. As a nation, we have yet to come to grips with what it is we want from our rural land-

scapes. We have a vague but powerful cultural affinity for farms, although we lack any clear understanding of what we hope they will provide for us, beyond inexpensive food (which in today's global economy is equally available from other sources). We also have a strong but largely undefined desire for environmental protection; we want wildlife, clean air and clean water, but we find it difficult to specify how much or how clean. Until we provide more detail to those desires, we will be forced to muddle through, unable to find a principled basis for choosing between or finding the right combination of agriculture and environmental protection when the two conflict. The palpable dissatisfaction of both farmers and environmentalists with the status quo suggests that muddling through is no longer satisfactory. The next step is to re-envision our rural landscapes, not as idealized family farms or nature preserves, but as real places subject to a variety of demands. Once we see that reality, we can begin to decide what demands should take precedence, and who should bear the costs of serving them. This conference marks an important step in that direction.