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SYMPOSIUM

LAW, SCIENCE, AND THE ENVIRONMENT FORUM: A MEETING OF THE MINDS

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| The Art of the Unsolvable: Locating the Vital Center of Science for Environmental Law & Policy..... | 935 |
| <i>David E. Adelman</i> | |

The image of science that has emerged from debates over environmental policy is distorted by expectations that are simultaneously too great and too modest. By clinging to a classical vision of science, critics set environmental science up for failure; by presuming that scientific results are primarily the product of ideology, they risk trivializing their value. This Article looks beyond the domain of environmental law to identify appropriate benchmarks for the role of science in environmental policymaking. A unique contribution of the Article is identification of finance theory and modeling as an exemplar for effective application of sophisticated scientific methods.

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| Incorporating Emergy Synthesis into Environmental Law: An Integration of Ecology, Economics, and Law..... | 963 |
| <i>Mary Jane Angelo & Mark T. Brown</i> | |

This interdisciplinary Article explores the viability of incorporating into environmental law and policy decision making the methods of emergy synthesis, a scientific methodology that integrates ecological and economic considerations. Specifically, this Article examines the viability of emergy synthesis in decision making by analyzing the advantages it offers and the mechanics of how to employ it in a variety of different contexts and using a number of existing environmental statutory frameworks. Through this examination, this Article demonstrates that emergy synthesis has the potential, not only to inform the law, but also to

transform environmental decision making by providing a well-developed scientific methodology that addresses both ecological and economic considerations in a comprehensive manner.

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| Science, Law, and the Environment: The Making of a Modern Discipline | 987 |
| <i>Deborah M. Brosnan</i> | |

Environmental law and science are uneasy companions. Issues of scientific versus legal definitions, standards, and interpretation of uncertainty abound. Which profession is best qualified to set standards and make decisions? Scholars and practitioners often call for bridging the gap in ways that maintain the separation of the disciplines. This Article argues that this approach does not work because it fails to recognize the reality that science and law are intertwined. Using examples from modern science and the Endangered Species Act, the Article shows how law and science influence each others thinking and advances. It calls for a modern new discipline that combines science and law and better prepares students for the future.

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| Science, Risk, and Risk Assessment and Their Role(s) Supporting Environmental Risk Management..... | 1007 |
| <i>Robert G. Hetes</i> | |

The Environmental Protection Agency uses risk assessment as a key source of information for making decisions about managing risks to human health and the environment. This Article reviews the EPA's implementation of risk assessment and its role in risk management decisions, with emphasis on the influence of science and policy on assessment procedures.

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| The Complementary Roles of Common Law Courts and Federal Agencies in Producing and Using Policy-Relevant Scientific Information..... | 1027 |
| <i>Thomas O. McGarity</i> | |

Professor McGarity examines the desirability of, and impediments to, greater cooperation between regulatory agencies and common law courts in sharing scientific information related to health and environmental regulation, and common law toxic tort and products liability litigation.

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| Reconstructing the Wall of Virtue: Maxims for the Co-Evolution of Environmental Law and Environmental Science | 1063 |
| <i>J.B. Ruhl</i> | |

Environmental laws require administrative agencies responsible for implementing regulatory programs to depend heavily on science in support of their decision making, but adopt an outdated "linear" model for doing so. This Article uses the Endangered Species Act as a case study in the fallacies of the conventional approach and a platform for adopting a vision of

agency decision making built around a dynamic conception of law-science questions and the positions of agency scientists and those responsible for exercising agency policy discretion.

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| OMB and the Politicization of Risk Assessment | 1083 |
| <i>Sidney A. Shapiro</i> | |

In January 2007, the Office of Management and Budget (OMB) withdrew its proposed draft Risk Assessment Bulletin (Bulletin), containing guidelines for the conduct of all risk assessments by government agencies, after being advised by a committee of the National Research Council of the National Academy of Sciences that the guidelines were too flawed to be repairable. This Article argues that, while the failure of the Bulletin is attributable to OMB's lack of scientific expertise, OMB's effort to politicize the risk assessment process was also responsible for the failure. The Article considers what should be OMB's role in the development of scientific guidelines in light of the potential for politicization of science in safety, health, and environmental regulation.

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| Biodiversity and a New "Best Case" for Applying the Environmental Statutes Extraterritorially | 1107 |
| <i>Paul Boudreaux</i> | |

When should the presumption against the extraterritorial application of U.S. environmental laws be overcome? In this Article, Professor Boudreaux develops a "best case" for overcoming the presumption, when 1) the overseas conduct affects interests within the United States, such as the interest in preserving biodiversity for future needs, and 2) the conduct would not create a clash with the expectations of foreign governments or culture.

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| Law, Environmental Dynamism, Reliability: The Rise and Fall of CALFED | 1145 |
| <i>Dave Owen</i> | |

This Article explores why management schemes for scarce, protected, and economically valuable resources so often fail. Through discussing an often-praised but ultimately unsuccessful environmental management process, it explains that conceptual understandings, which are both rooted in and influential upon legal systems, are a partial cause of those difficulties, and it proposes a different conceptual framing designed to produce more lasting solutions.

COMMENTS

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| Sequestration, Science, and the Law: An Analysis of the Sequestration Component of the California and Northeastern States' Plans to Curb Global Warming | 1217 |
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Elizabeth C. Brodeen

Global warming has impacts that will be, and are, catastrophic. Efforts to slow the effects of global warming are present at the state-level. Global warming initiatives include a carbon sequestration component that is based on carbon cycling science. It is crucial to understand the adequacy of the science and the interplay between the science and the overall policies of the initiatives.

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