Journal of Agricultural and Applied Economics, 28,1(July 1996):108–116

Environmental Regulatory Reform and the Unholy Trinity: Unfunded Mandates, Risk Assessment, and Property Rights

Craig L. Infanger

ABSTRACT

Major regulatory reform issues which involve environmental policy include issues of unfunded mandates, risk assessment, and property rights. Each of these proposed reforms involves major changes in environmental policies with impacts on different groups. Property rights is the core issue in Congress and state legislatures, with both regulatory takings and just compensation being the major parameters. Economists can participate effectively in this policy debate with successful research and education programs addressing the divisive issues.

Key Words: environmental regulatory reform, property rights, risk assessment.

Although it seems regulatory reform is a perennial policy issue, especially in election years, it was Philip Howard's book, *The Death of Common Sense*, which brought the issue to the forefront in 1995. Mostly a collection of urban regulatory absurdities, this book added momentum to the perception that government regulatory processes have become procedural nightmares whose sole beneficiaries seem to be lawyers. Howard concludes with a call for regulatory reform based on "broader principles" of what is right and reasonable, not what is legal, required, or allowed.

The most strident and partisan portion of regulatory reform is a subset of environmental issues, dubbed the "unholy trinity" by certain groups, which includes unfunded mandates, risk assessment, and property rights (Dowd). The rhetoric was so partisan and extreme during 1995 that Paul Portney concluded it was turning reform efforts into "cartoon caricatures" (p. 21). Any attempt to identify broader principles was paled by the strident attack leveled by environmental activists on the reform proposals and the early momentum of the reform-minded corporations, local officials, and angry landowners who sensed an unprecedented opportunity for immediate legislative relief.

If dismissed as fundamentally partisan, economists will misunderstand the implications of this environmental reform movement. There are broader issues and principles involved in this policy debate which transcend the partisan wrangling of 1995. If the current reform movement is viewed as part of a larger grassroots phenomenon which blossomed in state legislatures well before 1994, then a closer look may reveal reforms as not simply an attack on environmental legislation per se, but a more targeted assault on selected laws and the regulatory processes which are deemed out of control. In this context, it may be evident that environmental reformers are not questioning the *raison d'etre* or goals of environmental policies, but are more pointedly attacking the methods of implementation which seem to ignore any balancing of interests.

Craig L. Infanger is an extension professor in the Department of Agricultural Economics, University of Kentucky.

The author gratefully acknowledges the helpful comments of Verne House, Leon Danielson, Larry Sanders, and Rich Ready.

The purpose of this paper is to briefly explain the origins of the environmental "unholy trinity," examine the context of the broader issues involved, and identify what contributions economists might make to this policy debate.

Unfunded Mandates: The Issue Which Will Return

Unfunded mandates is essentially a local government issue with strong environmental policy implications. Although federal laws on public health, environmental quality, labor standards, and related subjects are promulgated to protect the public welfare, since the late 1970s the term "federal mandate" has emerged as a complaint from mayors and governors. To these officials, the Washington mandates have far outpaced the amount of federal financial assistance. This was especially true after 1981, when the federal government shifted from an incentive-based approach for programs like water pollution to a more command-based system directed at local and state governments. The almost inevitable result was the widely publicized study by Ohio and the City of Columbus which claimed that 14 different federal environmental mandates cost city government $1.6 billion over 10 years, or about $856 per family by the year 2000 (Hall).

Unfunded mandates became a national issue when a coalition of state and local government officials launched a public relations campaign three years ago by issuing a survey estimating the cost of unfunded mandates at $11.3 billion for FY 1993 (Price Waterhouse). Although the Clinton administration and the 103rd Congress quickly responded to this campaign in modest ways, it was the Republicans who made unfunded mandates a key feature of their "Contract With America" and pushed legislation early in the 104th Congress. Early in 1995, the Unfunded Mandate Reform Act (S. 1; H.R. 5) swept through the House and Senate on lopsided votes and was signed by President Clinton in March.

The unfunded mandates rhetoric has, momentarily at least, subsided—with Congress caught in a balanced budget quagmire which is forcing local and state governments into financial contingency planning for the short term. However, it should also be noted that the act signed into law in March was decidedly less radical than earlier proposals. Far from addressing the fundamental public finance issues of existing federal mandates, this legislation requires only three things: (*a*) the Congress must document the cost impacts of new mandates, and any new mandates risk a "point of order" on the chamber floor if not fully funded; (*b*) federal agencies are now required to conduct benefit/cost evaluations of new regulations and formally consult with state and local governments before imposing new mandates through rulemaking; and (*c*) a new executive branch commission is established to pare back existing mandates.

You need mention only two words to understand why unfunded mandates will inevitably return to the policy forefront: *clean water.* Although the Clean Water Act was last amended in 1987 and authorizations expired at the end of FY 1990, the Congress has not been able to complete any comprehensive reauthorization. The progressively more stringent regulatory requirements—moving cities and industries toward a statutory goal of zero discharge in the face of stagnant federal assistance to states for wastewater treatment—have combined to make this legislation a flash point in the regulatory reform debate.

Safe drinking water regulatory issues represent another dimension of clean water which will bring unfunded mandates back to the forefront. What is driving this issue is not pollution concerns per se, but the impacts of expanded monitoring and testing. The extensive 1986 amendments to the Safe Drinking Water Act (P.L. 93-523) vastly increased the number of contaminants to be regulated (112 by 1997) and broadened the monitoring, compliance, and enforcement of the act. The costs of meeting this regulatory expansion, primarily by rural water systems, have made this act and the Environmental Protection Agency (EPA) a target in the unfunded mandates debate. Rural water systems (those serving fewer than 3,300 individuals) comprise 87% of all water systems and experience the most serious compliance problems due to inadequate financial and technical resources to manage wastewater treatment. The EPA has estimated the average annual incremental household cost of compliance with the Safe Drinking Water Act to be about $145 for the smallest regulated systems, versus $12 for larger systems (Tiemann).

In a rare moment of bipartisanship for 1995, the Senate passed its version of reauthorization for the

Safe Drinking Water Act (S. 1316) on November 29, with a 99–0 vote. The measure required the EPA to certify that all costs of new contaminant standards do not exceed the estimated public health benefits, a step back from the "best available technology" mandate. In addition, the bill revokes the mandate that the EPA expand the contaminant testing by allowing states to set monitoring requirements as long as water supplies meet federal health standards. Narrowly defeated was an amendment to adopt the California practice of requiring all water systems to provide customers with a comprehensive list of contaminants discovered in regular monitoring.

While local governments protest the costs of meeting the mandated water quality goals, economic research seems to indicate what some water user groups (especially rural groups) already claim—that current regulations require treatment beyond the economically efficient point. Freeman's survey of published research and retrospective benefit/cost analysis on water pollution concluded that "it is highly likely that the anticipated benefits of the Clean Water Act are substantially below the costs . . . because of the inherent lack of cost-effectiveness in the existing pollution control policy" (p. 795). This conclusion derives largely from the view that our current technology-based water pollution control strategy requires point dischargers to reduce pollution to the maximum degree possible in technologic and economic terms, thus becoming "treatment for treatment's sake."

Tietenberg summarized research on these existing technology-specific effluent standards and concluded that the "studies support the contention that EPA standards are not cost-effective" (p. 493). Furthermore, he noted that despite the mounting evidence, the regulatory reform effort in clean water policy has not had as much impact on current policy as has been the case in reform of air pollution policy.

This research then suggests that on efficiency grounds, current policy lies somewhere to the left of q^* in the classic theoretical depiction of marginal costs and benefits of pollution abatement (figure 1). In this light, the public's questioning of the projected costs for meeting the zero-discharge goals of the Clean Water Act with technology-specific standards should come as no surprise to economists. As long as current policy does not distinguish among pollutants or provide incentives for least-cost technologies, we cannot balance treatments costs with perceived health risks of degradable pollutants versus the inorganic chemicals to achieve any semblance of cost effectiveness.

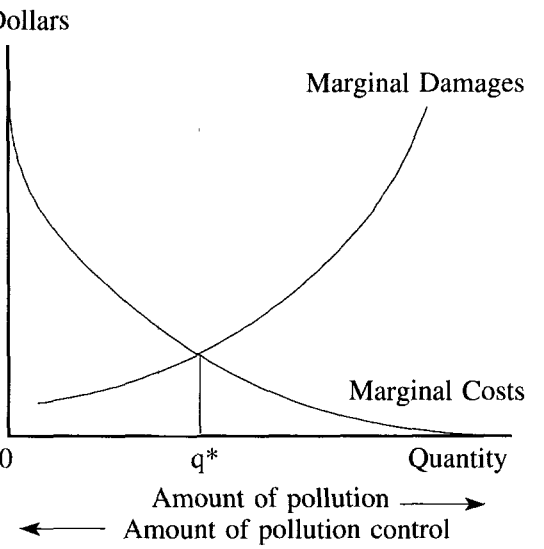

Figure 1. Marginal pollution damages and costs of pollution control

Since the unfunded mandates legislation signed in early 1995 did not address the existing clean water mandates or the safe drinking water issues, or any other existing mandates, the issue of what the federal government can mandate in terms of environmental standards remains unresolved and will likely return to the national policy agenda.

Risk Assessment: The Issue and the Paradox

Critics of environmental rulemaking, especially that practiced by the EPA for water and waste legislation, argue that expanded risk assessments[1] for all existing and proposed government regulations are a

[1] "Risk assessment" is the term most commonly associated with this issue, but "risk analysis" is more appropriate nomenclature. In practice, risk assessment refers primarily to formal procedures to produce a quantitative estimate of risk, e.g., expected rate of illness in populations exposed to hazardous chemicals. Risk analysis is a more broadly defined procedure which includes quantitative and qualitative evaluation of all relevant hazards, risks, and adverse effects on environments and populations (Schierow 1995b).

primary reform tool. Risk analysis is presented as a valuable information tool which will force the bureaucracy to identify economically efficient regulatory choices by targeting worst risks and balancing costs and benefits. In this sense, improved risk assessment is a joining of sound science and fiscal restraint. Critics argue that increasing the requirements for risk analysis will be costly, yield ambiguous results, and be as subject to political manipulation as the current regulatory system. Davies notes that no other issue is marked by as much confusion and misinformation as is the current debate over risk assessment (p. 5).

In fact, Congress has required some form of risk assessment in most of the environmental legislation passed since 1970 [e.g., the Clean Air Act; the Clean Water Act; and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)]. While not specifying the risk assessment methodology, environmental statutes do outline three broad types of specific risk management standards to government agencies: pure-risk, technology-based, and "no unreasonable risk" (Patton). The pure-risk standards are the zero-risk, health-based regulations such as the Delaney Clause for food additives or the primary ambient air quality standards in the Clean Air Act, neither of which allows any balancing of costs and benefits. Technology-based standards focus on alternative control methods for pollution situations where one control technology will reduce risk from a variety of different pollutants.

Congress has provided an implicit balancing of costs and benefits through requirements for "best practicable technology," "best management practices," or "best available technology" which can be found in sections of the Clean Water Act and in Natural Resources Conservation Service (NRCS) conservation compliance regulations. The least demanding risk directives are the "no unreasonable risks" requirements, such as those in FIFRA which direct the EPA to register all pesticides which will not cause "unreasonable adverse effects on the environment." Other language in FIFRA actually mentions a balancing of risks with the economic, social, and environmental costs and benefits of pesticides.

Although risk assessment has been a part of the regulatory process for over 10 years, mounting criticism has identified serious problems. Rosenbaum's appraisal of current risk assessment implementation by agencies like the EPA and the Food and Drug Administration (FDA) reveals the government has required costly and pervasive regulatory regimes which may be based on inconclusive scientific data, ideological bias by scientists and administrators, and vague statutory criteria. The gravity of the problem with the science of risk assessment was highlighted by an expert panel which reported that the government's primary animal testing protocols might produce false indications of carcinogenity in two-thirds of the chemicals tested (Rosenbaum, p. 217).

One congressional investigation of 20 different EPA risk assessments concluded that some studies did not follow agency guidelines, 19 of the 20 inadequately explained uncertainty in data and assumptions, and seven understated risk by failing to properly calculate total risk from different contaminants (General Accounting Office). A March 1995 *Business Week* article highlighted the "risks" of risk assessment as "lack of data, flawed methods, and unintended consequences," and, while conceding the theory is good, warned that more mandated risk assessment could lead to burdensome data collections and studies, process-slowing litigation, and regulatory gridlock ("Voodoo Regulation," p. 96).

The paradox about risk assessment is the popular demand for more risk assessment as a primary method of regulatory reform, despite the mounting criticism. At least nine state legislatures have already passed bills requiring new environmental or health risk assessments (Morandi 1995a). Fiscal considerations take a high profile in this shift in state environmental policy, especially in the face of unfunded federal mandates.

Congress "discovered" risk assessment as an important issue in the 103rd Congress, but failed to take any action other than including a mandate buried in the U.S. Department of Agriculture (USDA) reorganization bill to conduct more risk assessment of health and environmental regulations (Davies). However, after the 1994 national elections, the Republicans moved quickly to capitalize on public support for this issue by passing H.R. 9, the Job Creation and Wage Enhancement Act of 1995, on March 3. One part of this bill specifically mandates analysis of risks, costs, and benefits for all rules with an expected impact of $25 million "notwithstanding any other provision of the law." The Senate is considering similar legislation in three different

bills and a $100 million threshold (Schierow 1995a).

Viewed in the light of some fundamental world changes, the rush to more risk assessment may have a more understandable basis. In the first place, the quality of the environment has dramatically improved since the environmental decade of the 1970s. For example, the recent systematic assessment of Kentucky's environmental quality shows substantial progress on a broad range of empirical indicators, most dramatically in air quality (Environmental Quality Commission). In the public's mind, the concern for a clean environment is still strong and, in fact, as many as nine out of 10 Americans identify themselves as environmentalists, at least weakly (Dunlap, p. 99). But this support may be more strongly tied to global issues where impacts are vague and distant—e.g., global warming, ozone depletion, clearcutting rainforests, and toxic pollution in the Former Soviet Union. For those issues where impacts on property are more immediate and negative (in value or use terms), the public's critical eye is far more wary, especially as experiential and anecdotal evidence mounts. This would explain the majority's strong support for environmentalism, but rising resentment over wetlands regulations and biodiversity preservation—thus the call for more "reasonableness" in regulatory efforts, i.e., risk analysis.

Secondly, the statutory goals of the early legislation—zero discharge, zero risk—though modified and delayed by legal action in the late 1970s and 1980s, are still threatening to impose daunting costs on all levels of government. The call for fiscal restraint and "reasonableness" may be the public's expression of the economist's conclusion that economic efficiency in pollution control does not equal zero discharge/zero risk. And finally, it should not be forgotten that the primary calls for more risk analysis come from the regulated community—polluters and property owners—whose economic interests are provincial.

Economists have a role to play in the new risk assessment requirements. Although dominated by the biological and health sciences, risk analysis is a field of inquiry for which benefit/cost is one tool. Even if the threshold for required risk assessments remains at $100 million impact (Clinton's Executive Order 12866) versus the House-passed $25 million limit, benefit/cost analysis will have to be applied to new regulatory settings. There will be ethical, practical, and technical challenges.

On an ethical basis, those groups with an ecocentric value orientation will generate vociferous objections to the assumptions that salient impact data can be expressed in monetary terms for either benefits or costs. How tolerant and conversant are economists on the ethical issues? In practical terms, consider the costs of risk assessment. With the current cost of evaluating a major rule estimated to be about $1 million, and the number of possible rules subject to benefit/cost analysis at possibly over 1,000, will the Congress appropriate to federal agencies the budget necessary to conduct the analyses the public desires (Moore)? And from a technical perspective, can economists meld benefit/cost analysis into the risk assessment process in a credible way? Although contingent valuation and hedonic methods have theoretically overcome some of the limitations of traditional benefit/cost analysis of certain environmental issues, will these techniques be credible and accepted as practiced by agencies required to provide greater quantification of regulatory impacts?

These questions identify substantial amounts of applied research for the economics profession. With many issues being both ecologic and economic, the underlying value conflicts will exacerbate advocacy positions rather than foster the increased understanding that economic information from risk analysis and benefit/cost analysis should provide.

Property Rights: The Core Issue

After years of simmering, property rights issues are now "in full boil" in Congress and state legislatures (Meltz). After the 104th Congress convened, over 100 property rights-related bills were filed, and one major bill (H.R. 9) has passed the House.

Perhaps no regulatory reform issue involves more passion and divisiveness than does the perceived encroachment of environmental policies on private rights in land and water. The issue is driven by a seemingly endless stream of anecdotal evidence involving endangered species, wetlands, public lands management, clean water, and wilderness areas which have resulted in interference with

private property use. Reformers appeal directly to the constitutional guarantees contained in the Fifth Amendment to the Constitution: "No person shall be . . . deprived of life, liberty, or property without due process of law; nor shall private property be taken for public use without just compensation." There are no less than 1,000 groups and individuals active in property rights issues, many of whom view themselves as "foot soldiers for freedom" (Miniter).

Given our policy course of protecting all endangered species and "no net loss" of wetlands, property rights conflicts will become increasingly more contentious. From a policy perspective, one major part of the dilemma is the very nature of the legislation in question. For example, our statutory goal of saving every species is equivalent to the zero-discharge goal in water pollution policy. Both goals seemed admirable when the legislation was enacted, but from an efficiency, distributional, or practical viewpoint, the policy goal is simply unattainable.

In water policy we have delayed the 1985 deadline for zero discharge and allowed the EPA to institute programs of "best available technology" with consideration for costs of treatment that were "reasonable" in comparison to water quality benefits (Tietenberg, p. 486). In endangered species policy, the statutory goal was intentionally designed to eliminate "practicable" as a test of federal agency actions to affecting biodiversity and habitat (Mann and Plummer, p. 139).

The Department of the Interior implemented the endangered species policy timidly at first, but has become more aggressive since the Supreme Court decision in *TVA v. Hill* (1978), the snail darter decision. This trend will continue now that the Supreme Court has held, in *Babbitt v. Sweet Home* (1995), that significant habitat destruction is a "taking" of wildlife. Thus, the policy result is that almost *any* habitat modification which could potentially harm wildlife is prohibited, regardless of whether the harm was foreseeable or whether causality is scientifically established. We have painted ourselves into a corner of untenable policy choices for biodiversity protection which clash with deeply held values about property.

The statutory basis for Section 404 regulation of wetlands is only slightly less a policy conundrum. Our inability to develop a consensus about what constitutes a "wetland" and to implement consistent, understandable regulatory policies has bred widespread uncertainty about property rights. Because 74% of remaining wetlands are in private ownership, current policy stance imposes on landowners the costs of water quality benefits through use restrictions (Zinn and Copeland, p. 11). Despite the emphasis on mitigation, there is still the widespread perception of uncertainty and costliness for wetlands regulation, making Section 404 permits a target for property rights reformers. Alternatives exist which might provide accommodation to the property rights advocates: purchase of wetlands, long-term easements, or wetland banking which would involve the property holder and provide some compensation. These alternatives would accommodate deeply held property values while still producing some of the public benefits.

In the 104th Congress, there have been over three dozen bills introduced with wetlands reform provisions, and over 20 bills proposing reforms to the Endangered Species Act (Zinn and Copeland; Corn). But the current debate is broader than just these two issues. Varying by locale and policy, in a larger sense property rights issues are joined on two dimensions: "regulatory takings" and compensation.

Regulatory Takings

Property rights critics allege environmental rulemaking has become so invasive, vague, and restrictive that it results in widespread "regulatory takings." Since 1922, when the Supreme Court held that a "taking" had occurred in the case of *Pennsylvania Coal Co. v. Mahon* (260 U.S. 393), there has been a vague set of legal tests for takings. These tests involved whether or not the landowner was denied any viable economic use of the property and the "character" of the government interference.

A recent Supreme Court ruling seems to expand protection of private property rights, although this movement has been modest. In 1992, the Supreme Court ruled that a South Carolina law prohibiting development in low-lying areas on barrier islands removed *all economically beneficial use* of beachfront property, and thus was a "taking" (*Lucas v. South Carolina Coastal Council,* 112 S. Ct. 2886).

The landowner was paid for his land and the state took ownership.[2] In a related case (*Nolland v. California Coastal Commission,* 483 U.S. 825), the Supreme Court ruled that land use regulation must (*a*) serve the legitimate state interest, and (*b*) not deny an owner "economically viable use of his land." These decisions aside, the Supreme Court has not yet found a regulatory taking in the absence of physical appropriation or total elimination of economic use of land (Meltz).

Not satisfied with the outcome of Supreme Court decisions, property rights groups have successfully pressed for protection in state legislatures for five years. Since Washington state passed the first new "takings law" in 1991, similar legislation has been introduced or passed in 49 states, excluding only Georgia (Morandi 1995b). Most of these laws stop short of requiring compensation for property values affected by regulatory activity, but do require state agencies to assess the impact of their actions in order to avoid a compensable taking. None of this legislation modifies the definition of a "taking" as developed in constitutional law, but mandates an assessment to ensure new regulatory proposals do not eliminate every economically beneficial use of land. Advocates of these laws hope assessment will force agencies to analyze the property rights consequences early in the process and thus avoid the threshold trigger for a taking which would raise the requirement for compensation.

Just Compensation

Notwithstanding the Fifth Amendment, property rights advocates have pushed for compensation for whenever regulatory changes result in diminution of land values. In several state legislatures are bills which would mandate compensation for regulatory actions with a threshold of 50% (i.e., any reduction in property values exceeding 50% requires compensation) (Morandi 1995b). In some states, the proposed thresholds are as low as 5%. The political momentum behind property rights in state legislatures remains strong, so there is every prospect that compensation requirements may be passed in some states this year.

In the U.S. Congress, the House has already passed H.R. 9 (the Job Creation and Wage Enhancement Act), which instructs federal agencies to pay *full* compensation when *any portion* of a tract is reduced in value by 20% or more as a result of regulatory use limitations. If the financial loss is 50% or more, then the federal agency must buy the affected property.

In the Senate, the primary property rights bill is S. 605 (the Omnibus Property Rights Act of 1995), which is far more expansive in its coverage. The threshold in S. 605 is 33%, but the definition of agency action is so broad that even a change in monetary policy or farm programs could potentially trigger a compensable claim (Goldstein and Watson). And there is even a provision requiring compensation for temporary deprivations of use.

Takings-Compensation Policy Implications

There are serious policy implications for the takings-compensation legislation now pending in state legislatures and the Congress. The core issue is the challenge to the regulatory protection of public good aspects of natural resources, "the commons," versus the land and water owner rights. Conflicts will continue to escalate until there is some legal or legislative accommodation between the deeply held values of property owners and the environmental goals, especially those for biodiversity and water quality.

Secondly, pending legislation creates perverse incentives for rent-seeking behavior. A compensation feature would only encourage landowners to allege new and higher-valued use for land for which they may have had no real intended plan—just to trigger a claim against a federal regulator (Goldstein and Watson).

Conclusions

The "unholy trinity" of the regulatory relief represents three of the major environmental policy issues of the 1990s. The Congress has not passed legislation which fully addresses any of these three issues. Unfunded mandates will certainly return to the policy agenda this year because the legislation passed in 1995 did not resolve the basic issue: What can the federal government require and who should pay? Economic research, especially in water qual-

[2] The land was eventually resold with environmental restrictions.

ity, has a contribution to make in these debates if properly communicated in the policy process.

The expanded requirements for risk analysis present the most professionally challenging issue to practicing economists within federal agencies. Providing benefit/cost information to various parties in the regulatory process which will help balance quantifiable economic impacts with other more qualitative impacts may be the most difficult task. Critics may allege this will become "paralysis by analysis," and economists may contribute to the problem if we cannot adequately meet the challenges of helping answer the basic cost and impact questions which will arise routinely in regulatory processes at the major environmental agencies. Any successful research will give us something to say when inquiries come to economists about the myriad of new environmental issues confronting the people and communities in our region.

Property rights is the most pervasive and important of the "unholy trinity" issues. Economists should not underestimate the emotional dimension in the property rights debate. It will not accomplish much to attempt education about some obvious facts on property rights, e.g., rights in land are not absolute but evolving, redistribution of rights changes economic rents and may have high transactions costs, and the historical trend for decades has been an attenuation of private rights to meet public goals. That educational moment has passed in many of our states.

In both our classroom and outreach education we need to pursue innovative efforts addressing conflict. Conventional public policy education programs designed around the reliable issues-alternatives-consequences framework do not address our clients' needs to confront conflict directly. The new program guide, *Increasing Competence in Resolving Public Issues* (Task Force) is a beginning. The new Natural Resources Leadership Institute (NRLI) is a pilot effort being led by agricultural economists in North Carolina, Arkansas, and Kentucky. NRLI expands public policy education to look not only at environmental issues, but the nature of conflict and groups' methods for addressing conflict. The College of Agriculture in Kentucky was also a leader and partner in a successful multi-group, multi-agency effort to assess agricultural impacts on groundwater through a consensus-building effort with substantial applied research. Although still underway, this consensus-building approach to groundwater policymaking has reduced the acrimonious conflict more typical of other states.

References

Corn, M. L. "Endangered Species: Continuing Controversy." CRS Issue Brief No. IB 95003, Library of Congress, Washington DC, 26 October 1995.

Davies, T. "Congress Discovers Risk Analysis." *Resources* (Winter 1995):5–8.

Dowd, A. R. "Environmentalists Are on the Run." *Fortune* (19 September 1994):91–105.

Dunlap, R. "Public Opinion and Environmental Policy." In *Environmental Politics and Policy: Theories and Evidence*, ed., J. P. Lester, Chap. 4. Durham NC: Duke University Press, 1995.

Environmental Quality Commission. *The State of Kentucky's Environment: 1994 Status Report.* Commonwealth of Kentucky, 1994.

Freeman, A. M. "Clean Water Act Reauthorization: How Far Have We Come?" *Water Resour. Bull.* 30,5(1994):793–98.

General Accounting Office. "Superfund: Improved Reviews and Guidance Could Reduce Inconsistencies in Risk Assessments." Pub. No. GAO/RCED-94-220, Washington DC, August 1994.

Goldstein, J. H., and W. D. Watson. "Property Rights, Regulatory Taking, and Compensation—Implications for Environmental Protection." Unpublished manu., U.S. Department of the Interior, Washington DC, 4 October 1995.

Hall, M. "For Cities, Mandates Hit Home." *USA Today* (13 January 1995):6A.

Howard, P. K. *The Death of Common Sense: How Law Is Suffocating America.* New York: Random House, 1994.

Mann, C. C., and M. L. Plummer. *Noah's Choice—The Future of Endangered Species.* New York: Knopf, 1995.

Meltz, R. "The Property Rights Issue." CRS Report for Congress, No. 95–200 A, Library of Congress, Washington DC, 20 January 1995.

Miniter, R. "You Just Can't Take It Anymore: America's Property Rights Revolt." *Policy Rev.* (Fall 1994): 40–46.

Moore, J. L. "Cost-Benefit Analysis: Issues in Its Use in Regulation." CRS Report for Congress, No. 95-760 ENR, Library of Congress, Washington DC, 28 June 1995.

Morandi, L. "Environmental Risk Assessment Politics and Policymaking." Paper presented at the National Conference of State Legislatures, Denver CO, 1995a.

———. "Takings for Granted." *State Legislatures* (June 1995b):22–27.

Patton, D. E. "The ABCs of Risk Assessment." *EPA Journal* (January/February/March 1993):10–15.

Portney, P. R. "Cartoon Caricatures of Regulatory Reform." *Resources* (Fall 1995):21–24.

Price Waterhouse. "Impact of Unfunded Federal Mandates on U.S. Cities: A 314-City Survey." Analysis prepared for and published by U.S. Conference of Mayors, Washington DC, 1993.

Rosenbaum, W. A. "The Bureaucracy and Environmental Policy." In *Environmental Politics and Policy,* ed, J. P. Lester. Durham NC: Duke University Press, 1995.

Schierow, L.-J. "Risk and Cost-Benefit Provisions in House and Senate Bill—Update." CRS Report for Congress, No. 95-576 ENR, Library of Congress, Washington DC, 8 May 1995a.

———. "The Role of Risk Analysis and Risk Management in Environmental Protection." CRS Issue Brief No. IB 94036, Library of Congress, Washington DC, 5 September 1995b.

Task Force on Public Issues Education Materials. *Increasing Competence in Resolving Public Issues.* Coop. Ext. Ser., University of Wisconsin, 1994.

Tiemann, M. E. "Safe Drinking Water Act: Implementing the 1986 Amendments." CRS Issue Brief No. IB 91041, Library of Congress, Washington DC, 29 December 1994.

Tietenberg, T. *Environmental and Natural Resource Economics.* New York: Harper Collins, 1992.

"Voodoo Regulation." *Business Week* (13 March 1995):96, 98.

Zinn, J. A., and C. Copeland. "Wetland Issues in the 104th Congress." CRS Issue Brief No. IB 95028, Library of Congress, Washington DC, 9 October 1995.