

LETTER FROM THE EDITOR

Letter from the Editor

I am glad to be back on board as lead editor for volume 14 (2012) of *Environmental Practice*. Congratulations to my coeditor, Kelly Tzoumis, and her guest editors for publishing a diverse and robust collection of thematic issues in 2011 (volume 13). Kelly is now engaged in strategic planning for volume 15 (2013). The March issue of volume 14 was devoted to a hot button topic: green infrastructure. I am particularly grateful to my three guest editors who did the heavy lifting to bring this issue to fruition: Jeff Mengler, senior project scientist with Cardno ENTRIX in Barrington, Illinois; Jesse Elam, AICP, senior planner with the Chicago Metropolitan Agency for Planning; and Dennis Dreher, senior consultant with Geosyntec Consultants in Oak Brook, Illinois.

The editorial office of *Environmental Practice* employs a coeditor approach that alternates lead editorship annually between a natural scientist (James Montgomery) and a social scientist (Kelly Tzoumis), both of whom have practitioner experiences in environmental science and policy in the private and public sectors. The lead editor focuses on development of thematic topics, while the coeditor engages in strategic planning, including reaching out to authors, for his/her lead year. This model is vital to maintaining the three “ships” that are vital to sustaining the National Association of Environmental Professionals (NAEP): *membership*, *authorship*, and *readership*. In addition, this model of shared leadership has been quite effective in bringing in new perspectives and topics on environmental issues to achieve greater interdisciplinarity, as well as maintaining the mission of NAEP by providing quality articles that balance interests of both the practitioner and the scholar in the environmental profession. The day-to-day operations of the journal are handled by our very capable managing editor, Dan Carroll. Dan has developed an efficient peer-review process and continues to reach out

to potential reviewers. We have an active editorial advisory board (EAB) of 15 members who represent a mixture of scholars and practitioners from across the United States. EAB members have all reviewed or written contributions for the journal. We hope to expand the EAB to include more international representation.

Per NAEP custom, the June issue of *Environmental Practice* is devoted to the theme of its annual conference. The theme of this year’s conference, held May 21–24, 2012, in Portland, Oregon, was “Science, Politics, and Policy: Environmental Nexus.” So what does *nexus* mean? Dictionary.com defines it as “a connected series or group; a connection” (<http://dictionary.reference.com/browse/nexus>). Nexus sort of conjures a smooth-functioning system, with each component precisely milled, tuned, and integrated. However, does “nexus” adequately describe the relationship among science, politics, and environmental policy? I live and work in Chicago, once considered the meatpacking capital of America, and as I ruminate on this word with respect to how environmental policy is produced, I would suggest that the sausage-making process is an appropriate metaphor, whereby the sausage maker, attired in his bloodstained apron, mixes and grinds a little bit of this and a little bit of that, hoping that the end product will be gastronomically or, in the case of the policy maker, politically digestible. The resulting end product, whether policy or sausage, depends, of course, on the variety of the ingredients used and who ultimately is turning the grinder.

From my perspective as a natural scientist, the nexus among science, politics, and policy is not always easy to establish, and so to provide some clarity and illumination on this issue I turned to my trusted copy of *The Environmental Policy Paradox*, by Zachary A. Smith (2000). Why is it sometimes difficult to establish a nexus among the components of the policy-making process? One reason is that the stakeholders—scientists, politicians, and policy makers—

have different worldviews and time frames, and often speak a different professional language for which no Rosetta Stone exists. Indeed, Smith states, “From the perspective of the policy maker, scientific information is often not delivered in neat usable bundles that are readily adaptable to the policy problems at hand” (p. 11). Apparently the policy makers want quantized information. To be fair, I suspect that tunnel vision leads many scientists to miss the big picture. This is the result of years of focus on reductionist science. Scientists do not have all of the ingredients to toss into the policy-making sausage grinder. Indeed, the specialization and specificity of science may not be overly conducive to the comprehensiveness needed in policy formation. To be sure, science and policy making can be conducted in vastly different ways.

Politics has been described as the art of the possible, resonant with compromise, bargaining, cajoling, heavy-handedness (Lyndon Johnson was a master of this technique), compromise, and a general balancing of interests. Science, on the other hand, is often depicted as occurring in a vacuum with a presumption of objectivity, whereby inquiry is conducted independent of personal values and bias, and where the scientist seeks the truth while preferring to deal in absolutes. These are all quaint notions! There are no absolute scientific answers to many questions. Science almost never offers a quick fix to ecological problems. Smith notes, “In fact, in the enthusiastic flush of scientific do-gooding, much environmental harm can be and has been done” (pp. 10–11). For example, synthetic fertilizers fed a growing global population but are now indicted in the hypoxic zone in the Gulf of Mexico. The only real truth is that the scientifically correct answer may not be politically viable.

The relationship between science and policy making is freighted with another problem: policy makers often want all information available before making policy decisions. In

this case, decisions should not be made about the environment unless scientific evidence establishes clear causality, without uncertainty and with direct proof. Policy makers want hard scientific fact. But science cannot always deliver because unquestioned causality is rarely met in science. Science tries to minimize bias, but in the end it deals in probabilities (p values and r^2 anyone?).

According to Smith, “[S]cientific conclusions are generally drawn from the probabilities of a particular outcome” (p. 11). Herein is the monkey wrench that potentially disrupts the nexus: scientists are never in a position to know that they have all of the relevant information. Knowledge is provisional. In addition, some policy makers who do not understand the nature of probability dismiss it with that tired bromide “statistics lie.” I guess they do not understand the foundation of the insurance industry, which is rooted in the disciplines of actuarial science and risk assessment, and whose practitioners deal with probabilistic modeling. Yet we can be sure that these wonks have various types of insurance and do not think twice about purchasing it! Perhaps the best illustration of the aforementioned quote by Smith is the ongoing kerfuffle about climate change. In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC, 2007) stated, “[M]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the ob-

served increase in anthropogenic greenhouse gas concentrations” (p. 10). In this context, “very likely” means that there was a 90% probability that this observation was true. Sadly, even such a high probability as this has not been enough to convince many of our politicians and policy makers to enact climate change policy or sign on to the Kyoto Treaty. I suspect that many of these climate deniers just dismiss science out of hand if it contradicts or challenges their political worldview. But this begs the question, how can you dismiss something that you do not understand? Parochial political interests driven in part by our short-term Congressional election cycle, the aforementioned language barrier among the stakeholders, and unfortunate incidents such as the recent admission by MacArthur Fellow Peter Gleick, cofounder and president of the Pacific Institute for Studies in Development, Environment, and Security in Oakland, California, that he had lied to obtain fundraising documents and a donor list from the Heartland Institute, a right-wing think tank devoted to discrediting climate change, have all increased the rhetorical temperature but not the luminosity of the climate-change discussion. Examples like these perhaps illustrate just how difficult it can be to establish a meaningful and sustainable nexus among science, politics, and policy.

This issue of *Environmental Practice* features an eclectic mixture of perspectives, research articles, and environmental re-

views and case studies. I thank the authors for taking the time to compose thoughtful scholarship. Looking ahead, the September and December issues of volume 14 are devoted to professional ethics for the environmental professional (September) and to hydrofracturing (December). I have assembled a group of guest editors for both of these issues, and they have recruited an eclectic mixture of authors with diverse perspectives. I think you will enjoy them!

References

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- Smith, Z.A. 2000. *The Environmental Policy Paradigm*, 2nd edition. Prentice-Hall, Upper Saddle River, NY, 284 pp.

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