## TRENTON H. NORRIS

## On ENVIRONMENTAL LAW

he key disputes in environmental law are scientific disputes: How toxic is the chemical? How many people are exposed? What was its source? What will it cost to clean it up? How clean must we get it?

Science is present in many areas of law, of course. But the scientific issues in environmental litigation are both quite susceptible to emotional appeals — with plaintiffs, advocacy groups, governmental bodies, and trade associations arranged in opposite corners — and likely to involve intertwined issues of policy, such as how much risk is acceptable. As a result, to resolve the scientific disputes at the heart of most environmental cases, judges and jurors have to cut through hardened positions and appeals to emotion while also separating scientific data from policy choices. It is our job as litigators to help them do that.

Experts disagree. As a result, the judge or jury has the difficult task of resolving scientific disagreements in the face of uncertainty. On many environmental issues, the science may be immature or incomplete. Information may be lacking. There may not be enough studies, or enough high-quality studies, or even more than a few scientists who have looked at the issue. In some cases, the ultimate truth may be virtually unknowable. (After all, even evolution is still a theory.)

Law and science deal with uncertainty in quite different ways. Science measures uncertainty — whether in probabilities or ranges or other statistical measures — but it does not resolve uncertainty just to resolve it. An answer is not required. The scientific jury can be out indefinitely, open to new information and new analysis.

But in law, the litigants demand an answer. And so the law, and lawyers, have developed tools for dealing with uncertainty. Using them wisely is key to guiding the fact-finder through the thicket of a scientific dispute.

The main tool is the burden of proof. Environmental cases — not uniquely — are decided before they begin if the default outcome, set out by law, cannot be overcome. The lawyer who understands the default, and what it takes to overcome it, will develop a sound litigation (or settlement) strategy.

In environmental cases, where regulations play a role, a key tool for resolving uncertainty is deference to agency determinations. The court need not decide an issue if an agency has already done so and if its conclusion, although perhaps not what the judge would have decided, is within the realm of reasonable options delegated to the agency. See, e.g., Chevron, U.S.A., Inc. v. Natural Resources De-

fense Council, 467 U.S. 837 (1984). This tool avoids the need for resolving uncertainty because another appropriate authority has already done so.

The problem for environmental litigators is that policy can masquerade as science. Many environmental policy-makers were trained as scientists, and their expertise is critical to good policy. But not all can disentangle science from policy, and there are often strong incentives against doing so. The advocacy system, combined with the human need to defend one's conclusions (or those of one's employer and colleagues), tends to exacerbate this phenomenon. Lawyers must confront it.

The assessment of risks, which lies at the heart of environmental law and policy, is a good example. Government scientists and policymakers tend to err on the side of caution, to apply presumptions that reduce risk. This means that in determining, say, the safe level of a given

chemical, where there are multiple decision points, policymakers make multiple conservative assumptions in the face of uncertainty.

But these assumptions are policy decisions, not scientific conclusions. They may be conventional methods for addressing uncertainty in certain contexts, and they may be valid policy choices, but they are not the path to determining the truth — for example, the actual toxicity of the chemical — without applying a finger to the scale. The problem is that these policy deci-



Trenton H. Norris

sions are embedded in a conclusion that sounds scientific and was made by scientists, all with the government's seal of approval.

As a result, a key question for environmental litigators is how the agency's number was set and how it was intended to be used. How was uncertainty dealt with in the standard-setting process? What assumptions are embedded in the number? What policy goals are behind the standard? In short, what decisions were made in the policy process that are the province of the factfinder in litigation, and what purely scientific decisions are its basis?

E ducating the judge or jury on this distinction is perhaps the most important role of an environmental litigator because it protects the role of the judge and jury. The factfinder can defer to the policy conventions of scientific policymakers, or she can reject them and apply her own judgment to the scientific data. But the factfinder needs to understand where science ends and policy begins. Environmental lawyers must work hard to highlight the distinction, and to remind the judge or jurors of their obligation to find the facts and apply the law to resolve the scientific dispute.

Mr. Norris is the managing partner of Arnold & Porter's San Francisco office. trent.norris@aporter.com

