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Expert Analysis

Court Rulings Accept Climate Science

By
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Viewers of certain television networks, readers of certain newspapers, and anyone visiting Capitol Hill would come away with the impression that there are serious questions about whether climate change is occurring and, if it is, whether it is mostly caused by human activity. One place where there are few such questions is the courts. In fact it appears that (with one lone exception in a dissent) not a single U.S. judge has expressed any skepticism, in a written opinion or dissent, about the science underlying the concern over climate change. To the contrary, the courts have uniformly upheld this science, and in one notable recent opinion a judge has gone so far as to suggest that those who accused a leading climate scientist of fraud may have acted with actual malice by making claims that are "provably false," potentially subjecting them to damages in libel.

This column begins by discussing the several litigations involving one embattled climate scientist, and then describes how other courts have dealt with issues of climate science.

Michael Mann Cases

Professor Michael Mann of Pennsylvania State University is a well-known climate scientist and the principal creator of what came to be known as the "hockey stick" graph. Based largely on the observed growth in tree rings, it shows Northern Hemisphere temperatures going back to the year 1000 where they exhibit a gradual decline until the late 19th century, and then begin a sharp upward spike, accelerating in the last decades of the 20th century and taking on the shape of a hockey stick. The graph, first published in 1998 and since refined and extended, is one of multiple lines of evidence showing that industrialization is warming the planet. It took on iconic status in the 2000s, and those who question climate science began a concerted effort to discredit its validity. In 2006 the National Research Council released a report that, while acknowledging some scientific uncertainty with the early data, essentially affirmed the thrust of Mann's findings.[1] The attacks escalated in 2009 when a trove of emails among climate scientists was stolen by persons still unknown from a computer server at the University of East Anglia, U.K., and a few snippets of quotes were then depicted as showing that some of the underlying data had been falsified. Some branded this "climategate."

Multiple further inquiries were launched. They all absolved Mann and the other scientists of misconduct, though some shortcomings in recordkeeping and in communications were noted. Nonetheless, climate doubters and deniers continued to attack Mann.

One of those was Kenneth T. Cuccinelli II, the Attorney General of Virginia (and currently a Tea Party-backed candidate for governor). In 2010 he issued Civil Investigative Demands against Mann's former employer, the University of Virginia, under the Virginia Fraud Against Taxpayers Act, which prohibits presentation of "a false or fraudulent claim for payment or approval" to the Commonwealth of Virginia.[2] He sought documents from the university about Mann's work on climate change. The circuit court dismissed the demands without prejudice, finding that "the nature of the conduct is not stated so that any reasonable person could glean what Dr. Mann did to violate the statute."[3] The Virginia Supreme Court affirmed the dismissal of the demands, but it did so with prejudice and based solely on the grounds that the university is not a "person" under the relevant statute.[4]

Others continued their attacks on Mann. One blog run by the Competitive Enterprise Institute (CEI) went so far as to say that "Mann could be said to be the Jerry Sandusky of climate science, except that instead of molesting children, he has molested and tortured data in the service of politicized science that could have dire economic consequences for the nation and planet."[5] National Review Online ran posts calling Mann "the man behind the fraudulent climate-change hockey stick graph, the very ringmaster of the tree-ring circus," and saying his work was "intellectually bogus."[6]

Mann brought a lawsuit in the District of Columbia Superior Court against CEI, National Review, and two of their writers for libel and intentional infliction of emotional distress. The defendants countered that they were shielded by the First Amendment, by the "Fair Comment" privilege, and by the District of Columbia Anti-SLAPP Act (Strategic Lawsuits Against Public Participation). Such statutes, which many states have enacted, are designed to protect citizens from being sued for exercise "of the right of

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advocacy on issues of public interest."[7] In order to surmount this defense, Mann had to show that he was likely to succeed on the merits, and since he was something of a public figure, he needed to be able to prove that the defendants had acted with "actual malice"—that they made their accusations against him "with knowledge that it was false or with reckless disregard of whether it was false or not."[8]

In a decision issued on July 19, 2013, the court found that "several reputable bodies have investigated Plaintiff's work…and Plaintiff's work has been found to be sound. Having been investigated by almost one dozen bodies due to accusations of fraud, and none of those investigations having found Plaintiff's work to be fraudulent, it must be concluded that the accusations are provably false. Reference to Plaintiff as a fraud is a misstatement of fact."[9]

The court went on to find that there is "sufficient evidence to demonstrate some malice or the knowledge that the statements were false or made with reckless disregard as to whether the statements were false. Plaintiff has been investigated several times and his work has been found to be accurate. In fact, some of these investigations have been due to the accusations made by the CEI Defendants. It follows that if anyone should be aware of the accuracy (or findings that the work of Plaintiff is sound), it would be the CEI Defendants. Thus, it is fair to say that the CEI Defendants continue to criticize Plaintiff due to a reckless disregard for truth."[10]

The court went on to state: "The record demonstrates that the CEI Defendants have criticized Plaintiff harshly for years; some might say, the name calling, accusations and jeering have amounted to a witch hunt, particularly because the CEI Defendants appear to take any opportunity to question Plaintiff's integrity and the accuracy of his work despite the numerous findings that Plaintiff's work is sound."[11]

The court found the SLAPP defense to be inapplicable, and it directed the suit to proceed. Defendants' motion for reconsideration was denied. Defendants are seeking an interlocutory appeal.

The Sole Trial

It appears that there has only been one actual trial, with live witnesses, about the merits of climate science. It was held by the U.S. District Court for Vermont and arose from a challenge by the motor vehicle industry to the State of Vermont's adoption of greenhouse gas (GHG) standards for new automobiles.[12]

The state called three expert witnesses—James Hansen, director of the NASA Goddard Institute for Space Studies at the time of the trial; Barrett Rock, a professor in the Complex Systems Research Center at the University of New Hampshire's Institute for the Study of Earth, Oceans and Space; and K.G. Duleep, a managing director at Energy and Environmental Analysis Inc. where he is responsible for directing all studies in the area of automotive emission control and fuel economy. The vehicle manufacturers moved to strike their testimony "on the grounds that it is not reliable scientific evidence,"[13] and thus was not admissible under *Daubert v. Merrell Dow Pharmaceuticals*.[14]

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Hansen testified that ice sheet disintegration could cause a climate "tipping point." The court found that his "testimony provides the Court with important information on the nature and risks of global warming. As the regulation at issue was crafted in response to a recognition of these risks, understanding the nature of the regulation and its effects depends on an understanding of the science that underlies global warming."[15] Rock testified about a warming trend in the New England region over the past century, with projections showing that the coming century will bring still further warming and consequent adverse effects. Duleep testified that the automobile industry can comply with the regulation.

The manufacturers called experts who disputed much of what Hansen, Rock, and Duleep had said. The court found that the testimony of the three men was reliable, and that it helped the court reach its ultimate decision upholding the Vermont regulation. It noted that the testimony "supports the conclusion that regulation of greenhouse gases emitted from motor vehicles has a place in the broader struggle to address global warming,"[16] and that if these emissions are not abated, catastrophic consequences could follow.

Clean Air Act Cases

The seminal case in U.S. climate change law is *Massachusetts v. Environmental Protection Agency*, in which the Supreme Court held in 2007 that greenhouse gases are "air pollutants" under the Clean Air Act, and that EPA has the authority to regulate them if it determines that they endanger public health or welfare.[17] In defending the lawsuit, the Environmental Protection Agency raised many legal defenses but did not argue about the underlying climate science, and the Supreme Court took the science as undisputed. Indeed, the majority decision by Justice John Paul Stevens begins with these sentences: "A well-documented rise in global temperatures has coincided with a significant increase in the concentration of carbon dioxide in the atmosphere. Respected scientists believe the two trends are related."[18] The court's factual recitation relies heavily on reports of the Intergovernmental Panel on Climate Change and the National Research Council, and on an uncontested affidavit by a climate scientist, Michael MacCracken. EPA disputed none of this.

Nor did the dissenting opinions of Chief Justice John Roberts and Justice Antonin Scalia. They did not question climate science; instead they vigorously disputed the majority's view of the legal consequences of these facts, and the relative roles of EPA, Congress and the courts in addressing the problem.

Massachusetts left it to EPA to issue a formal determination whether GHGs pose a danger. EPA did that within a year after President Barack Obama took office.[19] It was met with a barrage of litigation. More than 100 suits were filed. They were heard together by the U.S. Court of Appeals for the D.C. Circuit under the rubric *Coalition for Responsible Regulation v. EPA*.[20] A phalanx of industries and states that opposed GHG regulation plunged into the climate science and argued that the court should overturn EPA's "endangerment finding," and the cascade of regulations based on it, because of faulty science. They argued that the scientific reports were unreliable, that EPA had not taken an independent look or consulted with the necessary bodies, that there was too much uncertainty to justify regulation, and that the economic consequences of regulation justified withholding the finding.

The D.C. Circuit rejected all of these arguments and dismissed all the petitions. It found that EPA had compiled a very substantial record of scientific evidence on the anthropogenic causes and serious effects of climate change. In an allusion to the Mann studies and others, it stated that "[s]cientific studies upon which EPA relied place high confidence in the assertion that global mean surface temperatures over the last few decades are higher than at any time in the last four centuries…. These studies also show, albeit with significant uncertainty, that temperatures at many individual locations were higher over the last twenty-five years than during any period of comparable length since 900 A.D."[21]

The court also discussed several other lines of evidence used by EPA that all pointed to the same conclusion. "In the end, Petitioners are asking us to reweigh the scientific evidence before EPA and reach our own conclusion. This is not our role. As with other reviews of administrative proceedings, we do not determine the convincing force of evidence, nor the conclusion it should support, but only whether the conclusion reached by EPA is supported by substantial evidence when considered on the record as a whole….When EPA evaluates scientific evidence in its bailiwick, we ask only that it take the scientific record into account 'in a rational manner.'…Industry Petitioners have not shown that EPA failed to do so here."[22]

Petitioners sought en banc rehearing. This was denied, but it yielded what appears to be the sole writing by any U.S. judge expressing any doubts at all about climate science. This was a dissent by Judge Janice Rogers Brown, who suggested that *Massachusetts v. EPA* was wrongly decided and voted to rehear the *Coalition for Responsible Regulation* case. She declared that "any harm to human health and welfare flowing from climate change comes at the end of a long speculative chain," and quoted a statement from the Bush-era EPA about the many uncertainties involved in predicting the impacts of GHGs.[23] She did not go so far as to say that the scientific consensus was in error—only that there was too much uncertainty to justify regulation.

Other Federal Statutes

The Clean Air Act is not the only federal statute being used to fight climate change and its impacts. Several suits have challenged government failure to account for the effect of climate change on endangered and threatened species in violation of the Endangered Species Act (ESA). This has led to a number of decisions accepting these effects as real and requiring the government to consider them. For example, the Fish & Wildlife Service's (FWS's) biological opinion about the operations of California's Central Valley Project (a massive water diversion project) was invalidated for failure to consider the effect of future climate conditions on the habitat of the Delta smelt, a small fish.[24] The FWS was also found to have erred in removing the grizzly bear of Yellowstone Park from the endangered species list because it failed to consider adequately the effect that climate change was having on a major food source for the bears, whitebark pine.[25]

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Another statute, the National Environmental Policy Act (NEPA), requires federal agencies to prepare environmental impact statements (EISs) for "major Federal actions significantly affecting the quality of the human environment."[27] Numerous decisions have faulted agencies for failing to consider scientific evidence of climate impacts in preparing EISs or deciding whether to prepare one. For example, an EIS was required for the issuance of fuel economy standards for light trucks, so that the effect of different possible standards on climate change could be analyzed.[28] Approval of a rail line that would take coal from Wyoming's Powder River Basin to Minnesota was temporarily vacated because of failure to consider under NEPA the GHG emissions that would result from the combustion of the coal that would travel on the line.[29] Another decision required the Rural Utilities Service to consider climate change before agreeing to finance construction of a coal-fired power plant.[30]

By no means do plaintiffs win all the climate change-related cases they bring under the ESA or NEPA. Many are dismissed because the particular projects involved would not themselves have significant climate impacts, or the plaintiffs lack standing to sue, or the government gave adequate consideration to climate impacts, or for various procedural reasons. However, it does not appear that any such cases have faltered because the courts did not accept the underlying climate science.

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1. Nat'l Research Council, Surface Temperature Reconstructions for the Last 2,000 Years (2006).
2. Va. Code §8.01-216.3.
3. *Rector & Visitors of the Univ. of Va. v. Cuccinelli*, 80 Va. Cir. 657 (Va. Cir. Ct. 2010).
4. *Cuccinelli v. Rector & Visitors of the Univ. of Va.*, 722 S.E.2d 626 (Va. 2012).
5. *Mann v. Nat'l Review*, Case No. 2012 CA 008263 B, 2013 D.C. Super. Lexis 7, at *6 n.4 (D.C. Super. Ct. July 19, 2013). (The court issued two substantially similar decisions the same day under the same docket number, one dealing with the National Review defendants and one with the CEI defendants. The quotes here are from the *CEI* decision.)
6. Id. at *6.
7. D.C. CODE §16-5502(a).
8. *Mann*, 2013 D.C. Super. Lexis 7, at *19 (quoting *Foretich v. CBS*, 619 A.2d 48, 59 (D.C. 1993)).
9. Id. at *30.
10. Id. at *33.
11. Id. at *34.
12. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F.Supp.2d 295 (D. Vt. 2007).
13. Id. at 310.
14. 509 U.S. 579 (1993).
15. 508 F.Supp.2d at 320.
16. Id. at 340.
17. 549 U.S. 497 (2007).
18. Id. at 504-05.
19. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).
20. 684 F.3d 102 (D.C. Cir. 2012).
21. Id. at 121.
22. Id. at 122.
23. 2012 U.S. App. Lexis 25997, at *42-44 (D.C. Cir. Dec. 20, 2012).
24. *Natural Res. Def. Council v. Kempthorne*, 506 F.Supp.2d 322, 367-70 (E.D. Cal. 2007); see also *Pac. Coast Fed'n of Fishermen's Ass'n v. Gutierrez*, 606 F.Supp.2d 1122, 1183-84 (E.D. Cal. 2008) (same project, different fish species, same conclusion); *South Yuba River Citizens League v. Nat'l Marine Fisheries Serv.*, 723 F.Supp.2d 1247, 1273-74 (E.D. Cal. 2010) (different project, different fish species, same conclusion).
25. *Greater Yellowstone Coal. v. Servheen*, 665 F.3d 1015, 1025 (9th Cir. 2011).
26. See *In re: Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litig.*, 709 F.3d 1 (D.C. Cir. 2013), reh'g denied, 2013 U.S. App. Lexis 8824 (April 29, 2013).
27. 42 U.S.C. §4332(C).
28. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172 (9th Cir. 2008).
29. *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8th Cir. 2003), reh'g & reh'g en banc denied, 2004 U.S. App. Lexis 1506 (8th Cir. Jan. 30, 2004).
30. *Sierra Club v. U.S. Dept. of Agric.*, 841 F.Supp.2d 349 (D.D.C. 2012), appeal dismissed, No. 12-5097, 2012 U.S. App. Lexis 13324 (D.C. Cir. May 30, 2012).

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