

## FAULTY AGENCY SCIENCE UNDERMINES MANAGEMENT OF NATURAL RESOURCES

by

Gary G. Stevens

Each year hundreds of administrative appeals and scores of lawsuits are filed challenging the ways the U.S. Forest Service and other federal agencies manage or fail to manage our national forests and the wildlife that live there.<sup>1</sup> Typically, this high stakes litigation generates considerable emotion from environmental activists on the one hand, and affected businesses and communities which are often dependent on these resources for their livelihoods, on the other. Nevertheless, all of the parties agree on one guiding principle — that good science is the necessary foundation for resolving these conflicts. This can create a serious burden for government wildlife scientists, who must strive to put their personal values aside in the interest of producing the best objective science. This increasingly appears to be too much to ask of mere mortals. Courts, therefore, must find effective ways to ensure that the wildlife science at the heart of these disputes remains objective and reliable. To do this successfully, courts must steer a careful course between respecting agency discretion and rigorously testing the methodology and assumptions underlying agency science.

*The Bald Mountain Case.* In 1992, the Wetsel-Oviatt Lumber Company, a small business dependent on timber from the national forests, was the highest bidder on a sale of Bald Mountain timber from the Eldorado National Forest in California. The Bald Mountain sale, like all Forest Service timber sales, had undergone an extensive environmental analysis and approval process prior to the bidding. Nevertheless, Wetsel-Oviatt was denied the award of the sale on the grounds that after the bidding was completed, additional studies by Forest Service wildlife biologists had found that harvesting the sale would result in unacceptable damage to wildlife habitat. Wetsel-Oviatt disputed these findings and filed a bid protest lawsuit in the U.S. Court of Federal Claims in 1994. After a four-year court battle, the company ultimately prevailed because the court found that the science the Forest Service used to justify cancellation of the sale lacked a rational basis and appeared biased by the “personal predilections” of administrative

---

<sup>1</sup>The United States Forest Service alone manages 192 million acres of land. “Approximately 100 Draft Final Environmental Impact Statements (EIS), 5,200 Environmental Assessments (EA), and 9,800 Categorical Exclusions (CE) are produced annually by the Forest Service, more than produced by any other Federal Agency, which guide management of [our] National Forests and Grasslands.” USDA Forest Service NEPA, NFMA and Appeals Homepage ([www.fs.fed.us/forum/NEPA/aboutnepanfma.html](http://www.fs.fed.us/forum/NEPA/aboutnepanfma.html)). Each of these actions is subject to administrative appeal and court challenges.

officials and government scientists. *Wetsel-Oviatt Lumber Co., Inc. v. United States*, 40 Fed. Cl. 557, 570-71 (1998).

The Bald Mountain case illustrates the difficulty in evaluating agency science in natural resource litigation and one court's solution to that problem. The studies which the government relied upon were conducted by Forest Service wildlife biologists and ecologists who had devised a formula called the "disturbance index." The formula purportedly used compatible and reliable data to project the likely impact of the proposed timber harvest on the habitat of the California spotted owl and the Pacific fisher and on Late Seral Forest (*i.e.*, patches of old forest) within the Bald Mountain sale area. If the index yielded a value of 5% or more, it was assumed that the disturbance caused by the timber harvest would have an unacceptable impact.

On the surface the "disturbance index" methodology looked detailed and impressive. In reality it was neither. Over the objections of the government, *Wetsel-Oviatt* was granted thorough discovery of the administrative record, including access to the underlying data used by the government scientists to construct the index. This discovery ultimately revealed that the government scientists knew that their data was erroneous and biased. In addition, the 5% disturbance index threshold had no basis in wildlife biology. In several instances the Forest Service ecologist who developed much of the underlying data rejected data presented to her by respected outside contractors and other scientists within the Forest Service, and replaced it with her own because their information was not compatible with her ultimate objectives. 40 Fed. Cl. at 566-68. The court concluded:

Whether or not the degree of error was known to the Forest Service, the Forest Service ignored the error in conducting their environmental analyses of the effects of the Bald Mountain timber sale, so long as the Forest Service personnel believed that the results of the analyses would lead to a conclusion that overstated the effects of the Bald Mountain timber sale upon the environment. . . . "The law of procurement does not tolerate 'actions reflecting personal predilections of administrative officials, whether ascribable to whim, misplaced zeal, or impermissible influence.'" *Parcel 49C Ltd. Partnership*, 31 F.3d at 1153 (*quoting M. Steinthal & Co. v. Seamans*, 455 F.2d 1289, 1305-06 (D.C. Cir. 1971)).

*Id.* at 570-71. Without extensive discovery and a thorough probing of the administrative record, *Wetsel-Oviatt* would never have uncovered the defective science used to justify cancellation of the sale. The court's willingness to allow this thorough probing was crucial to the outcome of the case.

Even more importantly, had the Forest Service wildlife biologists initially made their underlying data and methodology available for public scrutiny and meaningful peer review outside the agency, the flaws in their science might very well have been revealed and either remedied or an alternative approach adopted without any litigation. Apart from saving the time and expense of the prolonged bid protest lawsuit,<sup>2</sup> careful public scrutiny of this science before the decision was taken to cancel the timber sale would have strengthened rather than undermined public trust in the Forest Service's science.

***The Hatchery Salmon Case.*** In a recent case arising under the Endangered Species Act (ESA), the court rejected an attempt by the National Marine Fisheries Service to exclude hatchery-spawned coho

---

<sup>2</sup>In an out-of-court settlement, *Wetsel-Oviatt* was subsequently able to collect the majority of its legal fees and expenses from the government.

salmon from naturally spawned coho salmon in deciding to list the coho salmon as threatened under the ESA. *Alsea Valley Alliance v. Evans*, 161 F. Supp. 2d 1154 (D. Or. 2001). The ruling rested on a finding that the agency scientists' declarations established no valid scientific basis for distinguishing the two categories of coho, and created "the unusual circumstance of two genetically identical Coho salmon swimming side-by-side in the same stream, but only one receives ESA protection while the other does not." *Id.* at 1163. The court found this arbitrary and capricious and directed the agency to reconsider its action based upon "the best available scientific information, including the most recent data" in any further listing of the salmon.<sup>3</sup> *Id.* at 1164.

In reaching this decision the court acknowledged its obligation to give deference to agency decisions but also to subject them to a "probing, in-depth review." 161 F. Supp. 2d at 1159. This court, like the court in the Bald Mountain case, saw no conflict in allowing litigants, where necessary, to closely scrutinize the work done by agency scientists to determine whether agency action was based on sound science and objective analysis.

***The Missing Lynx and Shortnose Suckers.*** Within the last twelve months, two separate actions by government biologists involving the Canada lynx and the shortnose sucker fish gained notoriety and cast doubt on the credibility and reliability of federal wildlife science. The lynx incident occurred when two government wildlife biologists submitted samples of hair from the endangered Canada lynx as part of a lynx survey being conducted by state and federal agencies. The samples were falsely labeled as coming from Washington State forests, when in fact they were laboratory samples. When the hoax was discovered, the biologists said that they were only testing the laboratory's ability to analyze the lynx DNA. Regardless of their actual motivations, the biologists admitted that they did not follow appropriate protocols and were not authorized to test the laboratory. No actual harm occurred, but the incident caused an uproar among both those who think that the Endangered Species Act is being used improperly to advance a preservationist agenda. With the management of millions of acres potentially at stake, biologists collecting and analyzing the crucial underlying data for these decisions must be entirely credible and above any suspicion of bias. No litigation has arisen from this incident, but one can be certain that when federal regulators make their next decision on the endangered lynx, the underlying data will be intensely scrutinized.

The endangered shortnose sucker and other fish inhabiting the Klamath River Basin in Oregon became the subject of controversy in the spring of 2001. The U.S. Fish & Wildlife Service released a biological opinion finding that the suckers would be in jeopardy if the water levels in the Upper Klamath Lake and the Klamath River were allowed to decrease in order to provide the many farms in the Basin with water. On the one side environmental activists, fishermen and Native American tribes argued that the ecology of southern Oregon and northern California would suffer great injury if the water levels were lowered. On the other side farming communities stated they would be financially ruined if they were deprived of water to irrigate their land during the drought-stricken summer of 2001. Based on the biological opinion, the Bureau of Reclamation drastically reduced the irrigation available to farmers, many of whom suffered severe economic injury or went out of business.

In the fall of 2001, at the request of the Department of the Interior, the National Academy of Sciences analyzed the biological opinion. The Academy reviewed the same information available to the government scientists who authored the biological opinion and bluntly concluded that "there is no substantial scientific foundation at this time for changing the operation of the Klamath Project to maintain higher water levels" in either the river or the lake as a means to protect the endangered sucker or other

---

<sup>3</sup>The Endangered Species Act requires that listing decisions be made "solely on the basis of the best scientific and commercial data available." 16 U.S.C. § 1533(b)(1)(A).

threatened fish populations. *Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin: Interim Report* (2002), National Academy of Sciences, Washington D.C. at 3. Although this may not be the last word, the Academy's report exposed the serious shortcomings of the science the agency used to justify a change in water flow which had dire consequences for many farming communities in the Klamath Basin. This is another instance where faulty agency science resulted in a disastrous resource management policy, which may have been avoided if that science had been exposed to public scrutiny at an earlier stage.<sup>4</sup>

***The Daubert Principles and the Data Quality Act: Available Tools for Improving Agency Science.*** In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993), the Supreme Court endorsed the "gatekeeping" function of federal judges to screen out expert testimony based on unsound science. The Supreme Court has recommended that the *Daubert* inquiry should begin with "a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts at issue." 509 U.S. at 593. In turn this may require determining whether the theory in question is falsifiable and whether it "has been subjected to peer review and publication." *Id.* Courts and agencies should ask these same questions about agency science when it is used to justify significant natural resource management decisions. Courts should also ensure that litigants are afforded a reasonable opportunity to use discovery to probe the administrative record whenever doing so is necessary to test the reliability of the science. Adopting these principles will do much to improve the quality and objectivity of the government's natural resource science.

The Office of Management and Budget (OMB) has recently issued new federal guidelines under the Information Quality Act, Public Law 106-554 (2000), to ensure that federal agencies disseminate and utilize better quality scientific data. 67 Fed. Reg. 369 (Jan. 3, 2002). By October 1, 2002 all federal agencies must issue their own guidelines or adopt those of OMB. *Id.* Among other points, the OMB Guidelines require the use of the "best available science" and sound statistical methods in developing data. *Id.* at 373. Under the Act, agencies must correct information that does not comply with the Guidelines, and an agency's failure to do so could be challenged in court. *See OMB Guidelines on Quality of Information Seen as Having Profound Impact on Agencies*, DAILY ENVT. REP. (BNA), Jan. 14, 2002; *EPA Proposed Guidance on Data Quality Draws Fire From Industry, Advocacy Groups*, DAILY ENVT. REP. (BNA), June 24, 2002. This Act and the OMB Guidelines could be potentially significant in the effort to ensure the integrity of agency science.

***Conclusion.*** Courts and agencies have the tools they need to safeguard the integrity of the science which forms the foundation for federal natural resource policies. The wise use of these tools will mean greater public trust of the regulatory process, and consequently more support for the many difficult natural resource management decisions that inevitably lie ahead.

---

<sup>4</sup>A coalition of farmers and other water users has now filed a lawsuit seeking approximately \$1 billion in compensation for the taking of their water rights under the Fifth Amendment to the U.S. Constitution. *Klamath Irrigation District v. United States*, United States Court of Federal Claims No. 01-591L (filed Oct. 11, 2001).