An Epic Battle **Against Polluters**

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hen we think about the evolution of environmental policy, many of us tend to imagine congressional committee wrangling, Sierra Club activists trying to out-hustle coal industry lobbyists, and competing policy briefs from the World Resources Institute and the American Enterprise Institute. We don't think about street-level bureaucrats working from an out-of-the-way US Fish & Wildlife Service field office. We probably don't think about small-town, weekend beat reporters.

But Paper Valley is a David and Goliath story about how David Allen, a "peon" in the bowels of the US Department of the Interior, worked with—and sometimes without colleagues to force remediation of Wisconsin's Fox River, which over decades had been severely polluted with polychlorinated biphenyls (PCBs) by the paper mills lining its banks. It is a story of how Susan Campbell, a newbie, tendonitis-racked reporter at the Green Bay Press-Gazette, worked to get readers to understand and care about PCB concentrations in local waterways as intently as they followed Brett Favre's pass completion percentage for the Packers—sometimes against the wishes of her own editorial board.

Allen and Campbell's book is a nicely written, engaging account of the largest PCB cleanup in history, one of the largest contaminated sediment cleanups of any kind in the world. It chronicles the scientific research, governmental interactions, legal procedures, and public engagement efforts in the late 1990s that led to the eventual dredging and removal of roughly 6.5 million cubic yards of contaminated sediment, the capping of 1,000 acres along a 40-mile stretch of the lower Fox River, and the selection and completion of 170

restoration projects. In its dissection of a \$1 billion settlement between the paper industry and the US government, the book describes a pivotal event in the history of American environmental conservation and remediation. But it's more than this.

The book is also a story about how scientific research and monitoring data can—and cannot—be transformed into agency decisions and subsequent court filings. It is a lesson about how scientific documentation can be meshed with statutory precepts and judicial rules of evidence to create a compelling vehicle for litigation and social change. To me, it's a reminder that science cannot and does not simply speak for itself, but must be shaped and framed to fit within a specific operational environment.

In this case, Allen and colleagues pioneered the use of Natural Resource Damage Assessments (NRDAs), a legal process used to evaluate damage caused by pollutants, as a way to spur remedial activities under the 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA is legislation that authorizes US government agencies, state agencies, tribal governments, and other trustees to seek out and ensure cooperation from the entities responsible for the pollution—a program sometimes known as Superfund. Typically, the NRDA process includes two steps. First, scientists identify and characterize specific injuries to public health and the environment. Second, trustees evaluate social, economic, and ecological damage caused by the pollutant release. Trustee agencies then use the estimates of damage to seek legal redress from the parties identified as responsible.

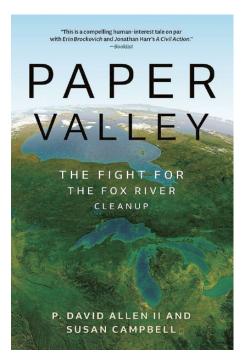
Scientific information plays an important role in this process, and the book is larded with references to "key" data, documents "central" to the assessment, and "critical" information. But to my taste—and probably that of most Issues readers—the authors could have engaged in a deeper discussion about why they're important, why they stand out from the reams and decades of documentation pertaining to the

polluting of the Fox River and Green Bay. For instance, I would have liked to hear more about intriguing challenges of a purely technical nature: How did regulators select human consumption PCB "action levels"? Why were PCB concentrations in fish the major risk drivers for the assessment and not wildlife impacts or disrupted ecosystem processes? Why was it okay to allow for the "natural recovery" of some areas, but not others? In what ways did independent scientists need to "adjust their research priorities," in Allen and Campbell's words, to answer questions pertinent to the NRDA process? How is it that certain facts and the law point to "prescribed actions," but others do not?

Paper Valley is, of course, written from the authors' point of view as participants. There's nothing wrong with this. It's a story of good versus evil, of cretinous politicians and weakwilled bureaucrats. It's a good tale, but it does leave me to wonder if there was legitimate disagreement about the scope of the problem, scientific uncertainties, assumptions underlying risk characterizations and economic models, and public values. Were the paper companies and their supporters totally dissembling to avoid a costly cleanup, or were there aspects of the issue about which honest, Packers-loving folks might simply disagree? Were there aspects of the story where pure-hearted, equally bright scientists might just see things differently? For instance, some economists favor a "revealed preference" approach to damage assessment over "stated preference" studies, not because of some ideological motive but because they happen to believe the former is more rigorous, transparent, or intuitive.

Political scientists describe policy entrepreneurs as individuals who leverage opportunities to influence policy outcomes that promote specific goals without having the resources necessary to achieve them alone.

Allen and his Fish & Wildlife Service team certainly fit this description. By themselves, they lacked the authority—



Paper Valley: The Fight for the Fox River Cleanup

by P. David Allen II and Susan Campbell. Detroit, MI: Wayne State University Press, 2023, 296 pp.

budgetary, legal, or scientific—and economic analyses to initiate and conduct a large-scale, multiparty NRDA. The story of how Allen and his colleagues constructed a trustee council of partners to push through the NRDA is interesting and dramatic. Turn after turn, the trustee council never seems in a position to congeal enough to pull it off. Allen and Campbell detail bureaucratic jealousies within the Department of the Interior, the Environmental Protection Agency's waffling on acknowledging and carrying out its statutory mission, and the Wisconsin Department of Natural Resources' aggressive refusal to do anything but seek voluntary solutions with the paper mills.

But it was also dispiriting to learn that the state of Wisconsin and attorneys for the Fox River Coalition, a group sponsored by the paper companies, refused to acknowledge the sovereignty of recognized Native American tribes with deep stakes in the problem. In this regard, I really wish Allen and Campbell would have delved more deeply into the involvement of the Oneida and Menominee tribes, both of which had sovereign, tribal lands exposed to the PCB release. It would have been helpful to know if the damage assessment considered tribal lifeways or whether it attempted to integrate Indigenous knowledge with modern science.

I do have a few other peeves with the book. First, it has no index; serious books with serious readers need an index. Second, the book tells a story as serpentine as the Fox River itself, so a timeline isn't just nice, it's necessary. But the one on offer at the front of the book is frustratingly limited and truncated, beginning only in 1991 and with key events left out. If the timeline began with the discovery in 1966 that herring gull eggs in Lake Michigan were spiked with PCBs, this would help inform a conversation about how long and torturous the road from scientific concern to coherent, actionable policy problem tends to be.

Lastly, I wish Allen and Campbell had rewarded themselves—and the rest of us—by using the Fox River victory and subsequent publication of Paper Valley as an opportunity to opine about the adequacy and effectiveness of CERCLA, Superfund, and the NRDA process as vehicles to drive the restoration of contaminated US lands and waterways. There are currently something like 1,330 sites on EPA's Superfund National Priorities List (NPL), with another 43 proposed. Over the life of the program, only about one-third of NPL sites have been cleaned up and removed from the list. Although Paper Valley describes a genuine if hard-fought success story, is this policy complex sufficient to enable EPA to address other Fox Rivers? What can and should be done differently?

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