environmental effects of this form of pollution led to the formation of the National Acidic Precipitation Assessment Program (NAPAP) in 1980 to determine the extent of the problem. NAPAP was the first federally coordinated environmental assessment program conducted at the national scale. Ten years and $500 million later, the NAPAP Integrated Assessment was published and the Clean Air Act Amendments of 1990 were passed. The message conveyed to the public at that time was that the acid rain problem was perhaps not as great as originally feared, and that the additional reduction in sulfur emissions that would result from the 1990 amendments should take care of the problem. As a result, the acid rain issue received little attention from either government agencies or the public through much of the 1990s. Concern about acid rain effects was rekindled, however, when it was recognized in the late 1990s that acidified lakes in the U.S. Northeast had shown little or no recovery despite nearly 30 years of consistently decreasing sulfur deposition. This information spawned congressional debate on whether the 1990 amendments needed to be modified to spur recovery of damaged ecosystems. As a result of this ongoing debate, the issue of acid rain is receiving renewed attention from both the scientific community and policy makers. Hence, *Aquatic Effects of Acidic Deposition* is a timely contribution.

The book is organized around the major themes that emerged from NAPAP research, and provides a thorough summary of the NAPAP State-of-the-Science Reports (technical reports that formed the basis of the 1990 Integrated Assessment). We now know that important gaps existed in our understanding of acid rain effects in 1990. These gaps were not a reflection of the quality of research conducted under the NAPAP program, but rather a result of the lack of information available at the start of the program. The concept of environmental monitoring and assessment was still very new in 1980. Therefore, little information was available on the condition of our ecosystems before the onset acid rain, which we now know occurred through most of the 20th century. NAPAP research also had to devote significant time and resources to basic research questions regarding many aspects of the biogeochemical functioning of watersheds. The establishment of environmental monitoring programs and our improved understanding of natural systems are two major contributions of the NAPAP program. Sullivan’s book does an excellent job presenting the challenges and successes of acid rain research conducted through the NAPAP program.

Despite the wealth of information gathered by 1990, the remaining knowledge gaps contributed to a false sense of security felt by many policy makers that the acid rain problem had been solved. This sense of security was not shared by the research scientists, however, and despite the precipitous drop in funding for acid rain research, some work continued through the 1990s. Although the scope of research was much smaller than in the 1980s, the foundation of knowledge developed by NAPAP enabled some important advances in the 1990s in understanding the effects of acid rain.

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Consider a Cylindrical Cow: More Adventures in Environmental Problem Solving

*John Harte, University Science Books, 55D Gate Five Road, 425 Jordan Road, Troy, NY 12180. E-mail: glawrence@usgs.gov*

When the first atomic bomb exploded in the Nevada desert, Enrico Fermi released some scraps of paper onto the ensuing wind and, within minutes, reported that the papers had been burned in a nuclear reaction that released 10,000 tons of TNT. Fermi’s experiment contrasted*