



## Some Reflections on the Evolution of Hydrology over the Last 40 Years

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When I started my career in hydrology with Steve Burges, now over 40 years ago, I found myself working on two kinds of problems. The first was water quality network design, the topic of my dissertation. That work was motivated by a seminal 1971 *Science* paper by Reds Wolman, titled "The nation's rivers". I also found myself drawn to an area of work broadly defined as streamflow synthesis, which was linked to problems of hydrologic risk analysis, in part for reservoir system design. At the time, I certainly didn't realize that the era of construction of large dams, which motivated most of that work, had already ended. While research on other aspects of risk analysis (e.g. floods) continued, there was a period early in my career when the community seemed to be searching for its identity. In my view, that period ended with publication by NRC of the so-called Eagleson Report in 1990, which was more or less coincident, although not linked, to early planning for NASA's Earth Observing System (the first of the two EOS satellites was launched in 2000). Both events lead to fundamental changes in the nature of the work the community was and is doing, not to speak of the capabilities of faculty members whose careers started less than about 25 years ago. I include a number of "before" and "after" examples of work done in the two eras, and some thoughts on challenges going forward.