



I received the ACS Scholarship in 1993 at Portland State University. 1993 was the year I finished my favorite chemistry series, P-Chem (thanks Dr. David McClure!) I can honestly say that the winter term final for that class was the only time I learned during and from the test. 1993 was also the year I met Dr. David Dunnette, who taught courses in water quality analysis and environmental toxicology. In the summer of 1993, I had already realized that I could not flourish working inside the confines of a typical lab. Dr. Dunnette encouraged me to explore environmental chemistry and take a few geology and groundwater hydrology courses. In the winter of 1993-94, as I was inquiring about the upcoming water quality analysis course, Dr. Dunnette said he had offered a couple of graduate students an opportunity to travel to Poland as part of a special project. I was all ears! In exchange for providing logistical support for a spring break International River Water Quality Symposium, and leading and writing up the class project (development of an international water quality index), I would travel with him and other Portland representatives to Gdansk, Poland for the 2nd part of the symposium. While the trip to Poland is a story unto itself, the experience gained in leading the development of the water quality index and presenting to an international audience brought me to the attention of Greg Pettit, Oregon Department of Environmental Quality (DEQ) Laboratory Water Quality Monitoring section manager. Dr. Dunnette had originally developed the Oregon Water Quality Index (OWQI), the international water quality index was based on the OWQI, and Mr. Pettit wanted to revive the OWQI. Soon after graduating from Portland State, I was working for Mr. Pettit driving around the state, collecting and analyzing samples from rivers and streams. On the side, I developed an advisory committee (including Dr. Dunnette) and set about bringing the OWQI up to date. I was able to publish a couple of peer-reviewed articles on the development and use of the OWQI; it is used to simplify communication of water quality status and trends to policy makers and is still used by DEQ to this day.



The first publication came at a key moment in the global development of water quality indices; my original article has nearly 400 citations. During the development and publication of the OWQI, I garnered skills in data analysis, data management, GIS, publication, editing and project management. After 8-1/2 years at the DEQ Lab I moved to DEQ Information Services with Mr. Mitch West to coordinate the development of the Pacific Northwest Water Quality Data Exchange. The purpose of this Exchange was to develop data standards and web services to allow a member of the public query on interstate water quality. The Exchange sent the query to relevant state agency databases (themselves all built differently) and return a response in a common format. This eliminated a step in data analysis of forcing different data feeds into a common format. My role in the project was to serve as a translator between IT and water quality specialists. This work evolved into further development of data standards, strategic planning and my first stint as a manager. After 5 years in DEQ Information Services, I switched agencies to the Oregon Public Health Division, as a manager of the Environmental Public Health Tracking Program. The Tracking Program brings together data on demographics, natural and built environments and their hazards, exposure information and health outcomes. Tracking data portals allow people to query and receive tables, charts and maps to enable informed hypothesis development and public health action.

Over 11 years in Environmental Public Health, the scope of my work has expanded to principal investigator and program manager of a portfolio of programs including Environmental Public Health Tracking, the Occupational Public Health Program, Adult Blood Lead Exposure Surveillance, Pesticide

Exposure Safety and Tracking, Radon Awareness, Beach Monitoring and the Domestic Well Safety Program. I am also developing a concept for a new public health program to characterize and address water insecurity in Oregon. While my career trajectory has taken me far from chemistry, the Portland State University Chemistry program and scholarships received (including from ACS) were instrumental in preparing the launch pad.

Thanks to ACS for your support of emerging scientists!

Curtis Cude