



International  
Water Association

**60 second interview | *Glen T. Daigger***

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**Glen T. Daigger**, Ph.D., P.E., DEE, NAE is Senior Vice President and Chief Technology Officer at CH2M HILL with responsibility for the technology function for the firm's water businesses (water resources, water supply and treatment, wastewater). Dr. Daigger is also a recognized expert in the areas of wastewater treatment and wastewater management. He has been with CH2M HILL for more than 25 years and has served in this position for 8 years. He was formerly Professor and Chair, Environmental Systems Engineering, Clemson University. He joined IWA (actually IAWPR) in 1973 as a graduate student at Purdue University and has maintained active membership ever since because of the professional associations and professional information that membership provides.

- *What do you consider to be the most significant recent change in your field of expertise to have occurred in the last 10 years?*

The transition from carbon (BOD) removal as the principal focus of wastewater treatment to the removal of a much broader range of constituents (such as nutrients, and more recently endocrine disruptors). This, in turn, is coupled with a transition from a principal focus on treating wastewater for discharge to treating wastewater for reuse, including environmental restoration.
- *What do you consider to be the most significant future challenge that professionals must deal with in the next 10 years?*

Resolving the degree of treatment required to adequately protect public health and the environment in the face of the range of evolving constituents of concern, such as endocrine disruptors, pharmaceuticals, and personal care products.
- *Whom do you consider to be the leading expert in your field, outside of your own organization, and why?*

Rather than singling out some of my colleagues, I want to emphasize the role played by some of the founding giants of our profession. We have a long term vision today because we stand on the shoulders of giants. Some of our living pioneers include Perry McCarty, David Jenkins, Les Grady, James Barnard, and many others too numerous to mention. Our profession is blessed with many outstanding leaders who have created the framework that we continue to build on.
- *Which report, product or service from your organization deserves more attention and why?*

I am very proud of the role that CH2M HILL has played over the years in both creating technology but also implementing it in benchmark projects that demonstrate that reclaimed water is a resource to be used, not a waste to be disposed of. Beginning with the South Lake Tahoe Advanced Treatment Plant in the late 1960's; continuing through projects like the Millard Robbins Water Reclamation Plant for the Upper Occoquan Sewage Authority; to the NeWater plants in Singapore to the Broad Run Water Reclamation Plant in Loudoun County, Virginia, we have consistently advanced the technology and practice of producing high quality reclaimed water that is suitable for the highest use.
- *In what ways would you like to see IWA change in the next 5 years?*

Let me provide two responses to this. First, something that I hope does not change. IWA does an outstanding job of linking academics and leading practitioners to advance both science and practice in the water arena. I urge IWA to maintain this as not only a core mission, but as a distinguishing mission for the organization. In terms of changes, I would urge IWA to become more and more inclusive in its governance – reaching out as broadly as possible to academics and leading practitioners around the globe.

- *Special interests...*

I am particularly interested in two areas. One is wastewater treatment technology – how can we refine existing treatment technologies and either evolve them or implement new treatment technologies to produce high quality effluents that can serve a number of purposes (reuse in a broad term, including environmental restoration).

The second area is the evaluation and development of new approaches to overall urban water management with much greater performance characteristics from an environmental and sustainability perspective. We live on a water scarce planet with a significantly increasing population living in areas of water stress and demanding effective solutions that will enhance the quality of life for the residents of those and other areas.

- *What are the key fracture points – issues of conflict or debate in your specialist area?*

I certainly am not a proponent of “treatment for treatment’s sake”. But, there are those in our profession who appear to believe that wastewater solutions are more “sustainable” if they use less energy and/or chemicals, even at the price of poor effluent quality. I believe that our focus needs to be on producing effluents that are protective of public health and the environment. We should not do this at “any cost”. But, we need to be the professionals who stand up for clean water for, if we do not, who will?

- *Forthcoming news of interest...*

I am very pleased that Professor Nancy Love is joining Les Grady and me as we work on the third edition of *Biological Wastewater Treatment*. It is surprising the quantity of new information that is available since we completed the second edition in the latter half of the 1990’s. An example is the discovery of the Annamox biochemistry and microbiology and its commercialization. Our profession continues to evolve – there’s always something new. We hope to capture the more important of these developments in the third edition.

- *Career defining moments...*

Three defining moments are certainly tied to mentors who have become colleagues. I may not have become an Environmental Engineer except for the inspiration and role model provided by Les Grady when I met him as an undergraduate Civil Engineering student at Purdue University. Meeting David Jenkins at the San Jose/Santa Clara Water Pollution Control Plant was also certainly a turning point in my professional career. John Filbert of CH2M HILL has also been an important mentor in both life and what it means to be a professional person. It all comes down to people.

- *Contact points*

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