

President's Message: What Kind of Environmental Professional Are You?

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Since receiving the honor of serving as President of the National Association of Environmental Professionals (NAEP), I have taken a good look at what NAEP is doing for our members, what we are proposing for the future, and what is still necessary. In many ways, this analysis is an outgrowth of the NAEP Board of Directors continuing efforts to improve and redefine what NAEP is and what it means to environmental professionals. Having been a part of these tremendous advances, in my new role I am evaluating our efforts from a different perspective to help steer the future of the association.

As an association, are we effective in providing other professionals with an understanding of our worth? Are we good at explaining to nonmembers and affiliated members that we have intricate interrelationships and that we are all dependent on the environmental regulatory framework that grew and continues to evolve from environmental legislation? Each of us is a part of a greater whole, and we all depend on the work that is continually being accomplished in each of the expanding fields that define the environmental professions. As old technologies improve, new technologies continue to develop and broaden the existing relationships further.

No area of practice in the environmental professions remains static. Continuing technological advances, refinement of procedures, increased measurement capabilities, and new methodologies require all of us to keep learning to stay abreast and relevant. In some instances, the merging of disciplines are creating new methods for our jobs or are requiring us to learn new technologies to continue to be effective at a job we have been doing for years.

For example, at the recent conference, I chaired the presentations on brownfields. *Fracking*, an old oil-field technique for extracting hydrocarbons from played-out fields, is now being used to clean groundwater on brownfield sites. This fracking is the same technology that is causing controversial issues in Pennsylvania as the Marcellus shale is being developed. The reports of related groundwater pollution require environmental professionals who have never dealt with oil-related issues to learn the technology and apply it to their normal job description.

Here we see an example of an industry practice from early in the twentieth century, combined with recent innovations in horizontal drilling, developed in the 1980s, being used in a new area of environmental practice and crossing into an established environmental field in entirely new parts of the nation.

The Deepwater Horizon incident brought with it a larger concern about hydrocarbon pollution and its effects on fin fisheries, shell fisheries, and human health. This has always been a part of knowledge base for marine biologists, oceanographers, and health professionals. However, individuals not formerly involved in hydrocarbon-related water sampling and laboratory analysis now need to become more adept at understanding the intricacies of proper sample handling, chain of custody, sampling technique, analysis methodology, laboratory technique, measurement limits, and the potential effect lab results have on their resource. Those who were concerned with only whether the seagrasses were getting enough sunlight must now factor in the effects of oil on growth and survival.

We are all required to learn many things in our undergraduate and graduate coursework. Professionals who have been in the field for many years can either stay abreast or become irrelevant. New professionals need to learn quickly and adapt to the changing world. I challenge each of you to look at your specific area of practice and clearly draw a distinction that separates what you do from all other areas of practice. I believe you will find that there is no clear separation, and if you are open to seeing the connections, I believe you will

realize our environmental professional interrelationships are real and growing.

A former President of NAEP stated that without the National Environmental Policy Act (NEPA), we would all be somewhere else doing something much different. Certainly, a chicken-and-egg argument is to be had about his explicit premise. Which law set up the need for environmental professionals? NEPA was certainly not the first law that dealt with the environment (think Rivers and Harbors Act, 1899). NEPA is, however, the first law that actually provided the regulatory and procedural framework to require environmental personnel to deal with multiple aspects of the human environment. The documentation required by the act created a need for environmental professionals to familiarize themselves with many scientific specialties. NEPA rolls into its two titles and 18 sections a complete and comprehensive means for requiring the federal government to consider the environment in all of their actions and to document their findings. It is one of the most comprehensive and, yet, one of the simplest laws that we have in our legal playbook. NEPA has spawned similar programs at the state level (CEQA, SEPA, GEPA, etc.).

The former President's point is that NAEP is a unique group of people. We are essentially a created industry. No manufacturing process required our skills. With the law, the environmental professional became a brand new service industry. What used to be the world of individual specialist experts quickly became a world of well-educated, knowledgeable generalists. Despite the many different emphases that define the environmental professions, we are all of a like mind. We have chosen our path because of an innate love for nature and the environment. Without environmental laws, we would all have had to choose a different path. If you are like me, however, you also knew that the environment was always your calling.

From 1960 to 1963, I lived in Hawaii. I was a tween, and for me that place was every bit the paradise that the word still conjures. The tropical smells still trigger in my mind wonderful memories of surfing, endless baseball, and my early morning news-

paper route. However, even in that idyllic location, our family was exposed to what is now considered to be an environmental hazard. Our house was in the direct flight path of the departing B-52's from Hickam Air Force Base on their way to Viet Nam. The noise of these low-flying behemoths made it impossible to hear anything other than the jet engine roar for nearly ten minutes as they rose into the sky and disappeared. Not until years later did I realize we had been exposed to noise pollution in paradise.

I grew into an environmentally cognizant adolescent on the shores of Lake Michigan (1963–69). At that time, the newspapers were full of the “death” of Lake Erie and the pollution imperiling Lake Michigan. I did not fully comprehend that pollution sometimes is unseen or hard to discern. To me, the beautiful expanse of water was inviting. I enjoyed swimming and tried surfing (not pleasant). For several years, I developed an almost clockwork, annual, raging bacterial ear infection. Soon after the water was warm enough to swim in, I was seeing doctors and getting huge antibiotic pills to swallow. By midsummer, we would see massive die-offs of alewives and dead floating carp. (Heck, they didn't even belong there.) This was my first exposure to the reality that there are times when pollution is not plainly visible. The water was beautiful and inviting but also clearly toxic at times. The air was not much better, with the nearby pharmaceutical plant providing another hazard. With a wind shift from the north, the smell of caramelized bananas would soon enough remind us to head inside. If we continued playing outside, we would soon find ourselves short of breath. At that time, I wasn't really aware that fresh air was a commodity; I just knew that I had to be cautious.

After high school, I moved to Pennsylvania. At that time, Pittsburgh was a town of dense air and floating ash, with the smell of burning coal from the active steel mills. Although it might have smelled like money to our parents or grandparents, the air proved lethal to many of them. The beautiful Allegheny Mountains were idyllic. What bothered me was the rust-colored streams everywhere, the piles of mine tailings alongside roads. I didn't realize that the tech-

nology that would solve these environmental problems was yet to be developed, or that, one day, acid mine drainage would diminish. Some of those streams are clean now, and the “boney” piles have been consumed in electricity cogeneration plants.

At that time of my life, I recognized the value of nature, but there did not appear to be any effective legal enforcement to require environmental cleanup. I knew that water needed to be clean to fish and swim properly. I knew that air needed to be clean. I understood that land had value beyond manufacturing plants and forest production. Finally, I recognized the problems and, as I entered college, realized that something needed to be done. Without anyone pointing me toward study of the environment, I knew it was an area that needed workers. It was where I knew I could make a difference.

Today, because of the work of dedicated environmental professionals, the water quality of Lake Michigan, Lake Erie (another formerly dead lake), and the Great Lakes has improved dramatically. The air in Pittsburgh is wonderful. In 2010, Pittsburgh was ranked eighth in the United States in the Green City Index created by the *Cincinnati Business Courier* (Green City Index, 2010).

Many comparative studies of water bodies initially sampled in the first part of the 20th century now show much better conditions. Formerly polluted lands are being converted into productive places of commerce and even housing. Environmental professionals have been a part of each and every improvement we have seen since 1940 or earlier. The environmental laws that were developed to address intense pollution were conceived by brilliant people with vision. We are their successors.

In a recent newsletter, we featured an article regarding other advances being made in the environment; in this case, these advances were not driven by legal requirement or regulatory punishment. Rather, in a move to save money and resources, and with a consideration for community improvement, the Phipps Conservatory in Pittsburgh is building a completely pollution-free campus, with net zero energy consumption and net zero water dis-

charge. This advancement provides us with a new aspect of the environmental professions. Sustainability, cost savings, and concern for the future are not being considered only because they are required by law. In many places, the suggestions have been made, the arguments of cost savings have been proven, and smart businesspeople are making decisions that will have positive environmental impacts.

Experts in green buildings are providing us all with a glimpse of what the sustainable future can be. Despite political rhetoric to the contrary, developing the capability to change our energy path is not only possible, it is imperative. We can argue whether the climate is changing and what is causing it. What can't be argued is that the new technology works and is providing us a vision for the future that costs less and pollutes less. These new fields in the environmental professions are taking us all to the future of America and the world.

As professionals, we are the ones cleaning the pollution and developing the technologies that minimize the human footprint. As a profession, we continue the environmental work that went before us. We are contributing in ways we might believe are insignificant. However, we all must realize that even small projects, with minor areas of effect, contribute to advancing the profession.

There is still much to be done. Today's tweens, adolescents, and college students are watching what we do and will use their own ideas to improve the environment further.

Environmental professionals work in an alphabet soup of regulations and oversight: RCRA, CERCLA, TSCA, FIFRA, NEPA, CWA, ESA, OPA, . . . you get the idea. Our disciplines are just as disparate . . . ecologist, chemist, geologist, engineer, environmental specialist, industrial hygienist, planner, etc. However, despite the variety of practice areas, I challenge any thinking environmental professional to set the limit of where your specific emphasis is unrelated to all the others. Whether you work with air issues, water pollution, soil

pollution, hazardous waste generation and disposal, energy production, alternative energy development, or any of the myriad other areas of practice, you are part of a greater whole.

In my career, I have never been one to accept being relegated to a single environmental cubbyhole. The certifications I have pursued attest to that. If other aspects of the profession were involved in a project, I needed to understand how the whole would result from the individual parts. I remember that my first NEPA project required me to write three sections of a two-volume set. I was the wetland expert, but I needed to know what the full project was and what my contributions did to help form the final recommendations. I needed to know how the other disciplines worked to weave the eventual story.

We are part of a multidisciplinary profession that is making the world better daily. While our area of practice might be unique to our specific company or agency, all of our work is interrelated, so we need to be aware of the many links among us. Think of any other business, any other vocation. Does any other professional association include so many different types of scientists with so many different experiences? I joined NAEP precisely because we are a big-picture, full-spectrum association. I knew that even if I did not do site remediation (which I have, as part of a company contract with the EPA), I could determine from other NAEP members what was involved if I just asked. The training and experiences of our membership are wide and deep, and the expertise, I believe, is intimately related. We are all in this effort together.

When I joined NAEP, I first looked at membership as an addition to my résumé. It was early enough in my career that I actually thought simple membership meant a great deal to employers or others looking at my résumé. In some ways, it does. To a potential employer, outside interests can mean an engaged employee. However, since those early years, my experience has proven that an employer can also view membership as a financial burden.

That perception changes only when the cost of membership is tangibly offset by

that member providing something back to the company. Personal growth is nice for the individual, but the reality is that a company is more concerned about whether the investment has a business payback. The relationship the company has to a national association and the advancement of one of their employees mean more to the company than just listing another organization on a single professional résumé. That exposure to new ideas, new technological advancements, and new business potential can be directly attributed as value to the company.

As an experienced consultant, I now understand many of the business advantages that membership can bring. I did not intuit the information; I was brought along by mentors. Some were unwitting mentors; others were directly aware that I was picking their brains. Whatever the method, I am indebted to those who taught me this trade. As members and affiliates of NAEP, we should be educating new members in the same way because eventually the information will pay off when they are the decision makers.

As a former state agency employee, I understand how hard it is for someone in a government position to become a member and maintain membership in the association. In government, the budgets are fixed and expenditures are often disallowed out of hand. NAEP membership then became a personal and professional value. I looked at the cost, compared with the personal and professional benefits, and decided membership was worth my personal funds. (Remember, we are a tax-deductible association, and professional dues and expenses are a direct tax benefit.) For several years, I paid my dues and realized that, despite the expense, I was providing something of importance to the agency and eventually increasing my professional value to future employers. For the agency, my involvement meant that a much wider perspective was now available to the entire department and that was worth more than the limited role I filled for them.

Whether membership costs are borne by private or public entities, the resistance to expending company or agency departmental funds is sometimes insurmountable. My

experience has been, however, that management eventually recognizes the contribution provided by an employee who is involved in their professional association. A fully engaged member provides the added wisdom of an entire profession through conference proceedings, journal publications, newsletter viewpoints, and other information made available as part of that membership. Involved members continue to learn and expand their capabilities. With that comes better decision making, which is an advantage to the department or agency. That added information can improve the knowledge and capability of an entire department. Involved members can become mentors, managers, and positive contributors based on the information that is constantly being made available through NAEP. If the knowledge and information are presented properly, even fund-restricted agencies recognize the value of an employee who is an involved NAEP member.

We must all guard against adopting an attitude that we know everything there is to know about our particular professional area of expertise. Just because things have worked this way for the last 20 years does not mean they need to remain static. We are a profession that *requires* continuing education. Once an environmental professional begins to believe they know it all, the slide toward irrelevance is swift.

NAEP membership exposes us all to new ideas, new interpretations, and new perspectives based on experience from members in other parts of the nation. We cannot fall into the mistaken belief that our geography makes us unique, that our environmental issues are unique. Such false conclusions can also lead eventually to irrelevance. Consider when a company or an agency wants to improve something they have done for years. Do they advance people who have been part of that stagnant situation or do they look for outside expertise as a source of fresh ideas? NAEP provides us ready access to national perspectives, national problems, and national solutions. That is why we are valued by our employers.

Membership in NAEP and exposure to the variety of people in the association have ingrained in me the certain knowledge that

an environmental professional is defined by much more than a single education and training. After years of involvement in NAEP, I understand, and have demonstrated to my employers and to other environmental professionals, that I am more than a wetland delineator, more than an ecologist, more than a writer. I have been fortunate to be afforded an extensive number of opportunities to expand my professional base. My exposure to professionals in NAEP has helped me to be a positive contributor to any project. So far, I have been able to tackle any project thrown my way. My college education has been a part of that, but my experiences and continuing education through active participation in NAEP has been a decisive professional advantage.

When I pursued and earned the Certified Environmental Professional (CEP) credential, I began to see a different attitude from many fellow professionals. Agency personnel who had formerly been suspicious of my motives now realize that I ascribe to a set of standards of practice and a code of ethics that enables them to trust what I say, believe my scientific conclusions. I have yet to encounter a CEP who has not seen that same change.

The main idea of joining a professional organization is to take advantage of all of the benefits available. As a member, it is incumbent on me to be active in the association. Many in NAEP share that belief. As a matter of basic fact, the value of membership is directly associated with the level of engagement. The networking, the valuable information obtained from a conference, and the quick injection of knowledge

available from a webinar all provide a means to continue learning, continue growing, and continue to be successful in my chosen field. Now that NAEP has engaged in an educational partnership with American Public University,¹ we all have increased access to resources to provide us with opportunities to continue learning, to hone our skills, and to keep our views fresh, as the profession grows and matures.

What stumps me is, how do I effectively communicate that to others who are less committed and less knowledgeable about the benefits of membership? Am I an effective ambassador for NAEP membership? Certainly, if I can talk to an individual for a time, I can relate what NAEP membership and involvement have gained me personally and professionally. But how do I maintain that person's interest enough to listen to the story, to pay attention, if they are as busy as I am. Many of us do not have the spare time required to be a fully involved NAEP volunteer.

What I will ask is that those busy professionals stay with us as we continue to grow. Do a little bit for us all by providing a brief e-mail with feedback on how we are doing and how we are relating to your specific environmental story. Each small message is important to us.

For regular, dues-paying NAEP members, I thank you for your contribution to our mission. I further encourage you to commit some of your valuable time to improve this association. Finally, I charge each of you to bring at least three professional acquaintances into NAEP over the next year.

For those who are directly involved in the continuing success of our association, thanks for your time and for your dedication. Your contributions are tremendously important.

For affiliated members (or those members in a state chapter that is still considering affiliation), I hope you are seeing the increasing value being afforded you by our new initiatives. We are trying to be relevant to all professionals, so we welcome input to make that effort more effective. Let your individual voice be heard by your boards of directors that NAEP benefits being provided have professional and personal value to you. They need that input to make an informed decision about affiliation.

Finally, for those chapters that have chosen at this time to leave NAEP, we are here, we are welcoming, and we look forward to your return.

Note

1. The American Public University System is headquartered in Charles Town, West Virginia, <http://www.apu.apus.edu/>.

Reference

- Green City Index. 2010. *Cincinnati Business Courier*, March 12. Available at <http://www.bizjournals.com/cincinnati/stories/2010/03/08/daily49.html> (accessed July 29, 2011).