

LETTER FROM THE EDITOR

The Water Special Edition

Last month, for the fourth consecutive year, I was privileged to stand in front of a fifth-grade class as a volunteer in the I LOVE Science program in Northwest Florida. My purpose was to initiate the class into this excellent program of bringing scientists into the classroom. We were set that day to discuss and demonstrate, through experiments and demonstrations, how to remove pollutants from water. For kids in Northwest Florida, thoughts of water usually mean a beautiful emerald sea, pure white sand, and an idyllic day at the beach or fishing. Northwest Florida elicits beautiful memories of water for all of us residents.

The bright faces that morning became for me a microcosm of what society knows about our most precious resource. Everyone knew water comes from a faucet, some had an idea of water treatment, and some knew about the actual source of water in streams, rivers, oceans, and the concept of groundwater and aquifers. They had no idea of what happens after we receive, use, and discard our water.

What I realized was that, while my main work that morning was to excite the kids about the amazing lifelong pursuit of science, I was also responsible to inform them of the importance of water. My job was to help them understand their part in keeping water clean, available, and enjoyable. I understand that these future leaders and citizens could be the ones who resolve our current water issues.

This issue of *Environmental Practice* came about as a result of an exciting conversation with James Montgomery. Neither of us is intimately involved in water resources as a paramount part of our professional pursuits. However, both of us wanted to have a better understanding of the extent of the environmental professions dealing with all aspects of water. While there is enough information, research, and opin-

ion on water to fill several journal issues, I believe the content in this issue fills several gaps in my knowledge. The contributions to this issue range from the large scale to the particular, the connection of the human spirit to water, and the need to understand how this resource is a critical aspect of the economy.

In his "President's Message," Ron Deverman provides a wonderfully poetic discussion of water as a source of peace and reflection, something I think we all have experienced.

The theme of cleaning wastewater is the subject of several contributions. Kozak et al. examine one of the innovative methods being used to treat wastewater. The use of ferric chloride to remove phosphorus from water treated with ultraviolet radiation appears to have an inhibitory effect on the disinfection of the effluent, but more testing could be required to settle the issue. Bloetscher, Meeroff, and Plummer look at the often-held belief that wastewater treatment plant discharges adversely impact coastal waters. Of particular concern are nutrient and trace-metal inputs to coastal systems and how they may affect the biota of the receiving waters. Gen points out that much of the public knowledge of wastewater management is in need of better public discourse. He paints a grand picture of the lack of public knowledge and provides a real-life example that many are not much smarter than a fifth grader.

Water management is a broader look at how multiple-user planning can affect populations. Cech clearly describes the western water management policy of "first in time, first in right," a policy much different from the management policies in the eastern United States. Is this western management policy sustainable? Is it a problem of policy leading to a real-world example of the tragedy of the commons? Mr. Cech is scheduled to be a keynote speaker at the 2011 NAEP Conference in Denver next April,

so study up on the issues and come to the conference ready to learn more directly from him.

Cockerill et al. review another aspect of western water management in New Mexico. In this study of alternate means of water management, the use of public representation and computer modeling to address water management issues appears to provide a way to improve overall decisions in this contentious matter.

Jenicek et al. address a more specific issue in water management: how to make mission-critical water use decisions for the present and into the future. The Army considers potential water availability issues 20 years out at two disparate locations relative to water availability and source.

Branching out from water quality, Patel, Glassner-Shwayder, and Eder consider water as transport mechanism: specifically, the issue of how the invasive Asian carp has affected aquatic systems in the Mississippi River basin and the potential impacts on the Great Lakes. The carp is an ever-present threat to the Great Lakes, and the political will seems to be there to enforce an "ecological separation" of the two water systems.

Continuing the theme of the impact that water has on economic concerns, Jaffe looks at storm-water management to improve the value of aquatic ecosystems. Green infrastructure is compared to conventional storm-water treatment as a means to change how storm water is handled.

Michaels and Oko examine the aspect of water and pollution from a different perspective than the other contributors. Once a water body has been polluted, how is it best cleaned? Given the known PCB pollution of the Hudson River, has the EPA-directed effort at PCB removal from the river sediments been effective? Are future

plans for removal in the best interest of public health within the areas requiring PCB removal?

The two Perspectives from the Field look at current issues in water but in two very different examples. Hey provides a perspective as to how the Illinois Department of Natural Resources (IDNR) can enhance the value of water resources through the use of nutrient banking and assignment of credits to help support the IDNR's shrinking

budget and still meet their mandated regulatory responsibilities. Nutrient farming and the sale of credits from the restoration of degraded habitats are proposed as political income sources for the IDNR.

Michaels returns with a quick, hard look at the Deepwater Horizon blowout and subsequent uncontrolled release of methane gas and crude oil into the Gulf of Mexico. He puts the incident into perspective and clearly defines his terms. He examines the

events that led to the blowout and holds nothing back in his contention that the incident was not an accident.

I hope you enjoy this issue of *Environmental Practice* and that it sparks interest, provides knowledge, and initiates an interest in water topics that can be revisited in future issues.

Paul B. Looney, Guest Editor