

inventory recently released by the Environmental Protection Agency (EPA), this problem is being addressed.

- *In terms of risk to human health, transfer of contaminants from marine sediments to humans is poorly documented and underassessed.* As a researcher in this area, I know that over the last 10 years this problem has been at least partially resolved.

- *Despite the widespread extent of contaminated sediment problems, remedial actions directed at excavating, treating, or otherwise manipulating contaminated sediments have been extremely rare.* In the last 10 years, a number of technologies have been applied, including dredging, capping, and some other in situ technologies.

- *Little or no weight is given to sediment-mediated contamination of edible fish and shellfish in the hazard ranking system.* At that time, the hazard ranking system was strongly biased to groundwater problems, but since that time it has been amended to provide a better ranking for contaminated sediments.

After that report was published in 1989, contaminated sediment problems continued to come to the fore. At the urging of the EPA, National Oceanic and Atmospheric Administration, U.S. Army Corps of Engineers, and U.S. Navy, a second report was commissioned aimed at trying to assess what technologies existed to clean up contaminated sediment.

A second Committee on Contaminated Marine Sediments was formed in 1993 to produce the report before us today. The Executive Summary of the second report, *Contaminated Sediments in Ports and Waterways: Cleanup Strategies and Technologies*,\* has been provided to all symposium participants. This 1997 report concluded that technologies alone will not solve the problem; there must be a strategy. Although technologies are available, it is also necessary to factor cost-benefit, human health, and risk considerations into the decision process.

This symposium acknowledges that the success of contaminated sediment remediation projects depends heavily on consensus building. Although there are many stakeholders—including port managers; transportation officials; industry, federal, state, and local environmental regulators; environmental groups; and competing users for all these marine resources—there are few venues in which these stakeholders can address the issues collectively in a nonadversarial setting. We hope this symposium provides such a venue.

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\* *Contaminated Sediments in Ports and Waterways: Cleanup Strategies and Technologies*. National Academy Press, Washington, D.C. 1997. Available via the Internet at <http://www.nap.edu/readingroom>, or call the National Academy Press (1-800-624-6242).

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## TECHNICAL FORUM FOR PRODUCTIVE IDEAS

Spyros P. Pavlou

**M**y co-chair summarized how we got here. I will offer a brief look into the future, which I believe can begin with this symposium.

The Symposium Steering Committee tried to develop concepts and issues that we would like to see propagated and discussed. The first is the issue of risk reduction; the second is sustainable management, or adaptive or continuous management; the third is reuse. Throughout the next two days, you will see these three terms being discussed, embellished, defined, and perhaps even rejected. However, the committee felt this would be an appropriate starting point. The symposium has been configured as a technical forum for the exchange of productive ideas, with members of the audience as contributors and partners in cooperative problem solving.

There are many issues to be addressed and solved. The two reports that Lou Thibodeaux discussed offered recommendations; however, they do not offer solutions to the problems. Through this symposium, we hope to take advantage of your collective experience and expertise to provide direction for the best way to deal with these problems now and in the future. We want to hear stakeholder response to the study report. We want to hear war stories, test cases, stories of successes and failures, and what should be done to promote better management of contaminated sediments. We want to hear your perspectives, your ideas, and your constructive criticisms. Above all, we want you to play an active role in contributing to this process.