

New Reports Released

Issues in Potable Reuse: The Viability of Augmenting Drinking Water With Reclaimed Water

By Jacqueline MacDonald

In March the WSTB released a much-anticipated report that evaluates whether drinking water supplies can be safely augmented with highly treated, reclaimed municipal wastewater. The report, *Issues in Potable Reuse: The Viability of Augmenting Drinking Water Supplies with Reclaimed Water*, concludes that indirect augmentation of water supplies with reclaimed water—that is, the use of reclaimed water to supplement the water in surface water reservoirs or in ground water aquifers that serve as sources of water supplies—is a viable option, as long as appropriate safety measures are in place. The report concludes, however, that direct injection of reclaimed wastewater into the water distribution system is not currently viable due to the lack of sufficient barriers to protect public health from contamination should a treatment failure occur.

The report will be particularly important in several U.S. communities that are currently evaluating whether to go forward with plans for indirect potable reuse systems. For example, the city council of San Diego, California, will soon vote on whether to proceed with plans for supplementing the natural water in the city's water supply reservoir with highly treated municipal wastewater—part of a strategy designed to increase the city's resilience to droughts. San Diego's plan is controversial. While several local groups, including the Chamber of Commerce, Sierra Club, and San Diego County Medical Society, support the plan, others object. Critics contend that methods for protecting the public against potential dangers of unknown pathogens in reclaimed water are inadequate.

Issues in Potable Reuse outlines a series of safety measures to protect public health from dangers of known and unknown pathogens in reclaimed water systems. The report concludes, "planned, indirect potable reuse is a viable application of reclaimed water—but only when there is a careful, thorough, project-specific assessment that includes contaminant monitoring, health and safety testing, and system reliability evaluation." Safety measures necessary in potable reuse systems include multiple barriers to contamination, including engineered treatment systems as well as sufficient storage in the environment, and continuous toxicological monitoring if the drinking water supply contains high levels of organic matter originating from wastewater. The report further recommends that other measures for water supply augmentation, including nonpotable uses for the reclaimed

water, be considered alongside any plans for potable reuse.

The report was written by the Committee to Evaluate the Viability of Augmenting Potable Water Supplies with Reclaimed Water. The committee chairs were Richard Engelbrecht of the University of Illinois (through August 1996) and James Crook of Black and Veatch. Other committee members were Mark Benjamin, University of Washington; Richard Bull, Pacific Northwest National Laboratory; Bruce Fowler, University of Maryland; Herschel Griffin, San Diego State University; Charles Haas, Drexel University; Christine Moe, University of North Carolina; Joan Rose, University of South Florida; and R. Rhodes Trussell, Montgomery Watson, Inc.

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Update: Current Projects

Committee on Watershed Management

During its two-year tenure, the Committee on Watershed Management has explored the opportunities and constraints associated with watershed-scale management and considered how to better integrate the ecological, social, and economic dimensions of such approaches. It has looked in particular at the relationships and relative roles of local, state, regional, and federal interests and agencies, and conducted information-gathering activities in five locations (Washington, DC; Chattanooga, TN; Irvine, CA; Minneapolis, MN; and Woods Hole, MA) to gain a first hand look at the opportunities and problems of watershed management in different environments and at different scales. The committee's report is now complete and undergoing outside review. Public release is expected in May 1998. The study sponsors include the Environmental Protection Agency, the Tennessee Valley Authority, the National Biological Service, the Natural Resources Conservation Service, the Bureau of Reclamation, the Forest Service, the McKnight Foundation, and the National Water Research Institute. The chairman is Will Graf, University of Arizona; the study director is Chris Elfring.

Sustainable Water Supplies for the Middle East