7-18-2006

The Decentralized Concept: The Key to Proliferating Reclamation and Reuse

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Abstracts of presentations given on Tuesday, 18 July 2006, in session 8 of the UCOWR Conference.

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Water resources management has historically/traditionally been compartmentalized, with waste water management being addressed apart from the overall water resources in a watershed. The focus of the waste water management function is to get rid of a nuisance, to make it go away. While effective reclamation and reuse of this nuisance has sometimes been accomplished, typically this is addressed only as an add-on, with the water resource value being recognized only at the end of the pipe that takes it away. This nuisance viewpoint bypasses many opportunities for achieving more efficient water resources management through reclamation and reuse, and it limits the effectiveness and cost efficiency of such activities. A more effective manner of maximizing reclamation and reuse-so extending freshwater supplies-is to integrate the waste water management process into the overall watershed agenda by treating this water resource as close to where it is generated as practical, and then maximizing the utilization of that reclaimed water as a water resource in the watershed, the manner of utilization being determined by the local circumstances.

This decentralized concept of management offers an organizing paradigm for waste water management that will be more fiscally reasonable, more societally responsible, and more environmentally benign than is conventional practice in many, many situations. The dispersed nature of the treatment systems demands a rethinking of the technological strategies, minimizing transport infrastructure and assuring treatment to an appropriate quality to serve various non-potable demands while incurring minimal O&M liabilities.

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