

Growing Clean Water



Review of "*Growing Clean Water, Nature's Solutions to Water Pollution*". By Bill Wolverton and John Wolverton. 172 pages.

Available from the Center for Ecological Pollution Prevention

URL: <http://www.cepp.cc>

Price: USD\$18.95 + \$3.25 U.S. (\$7 outside U.S.) shipping

By EcoEng correspondent [Carol Steinfeld](#), USA

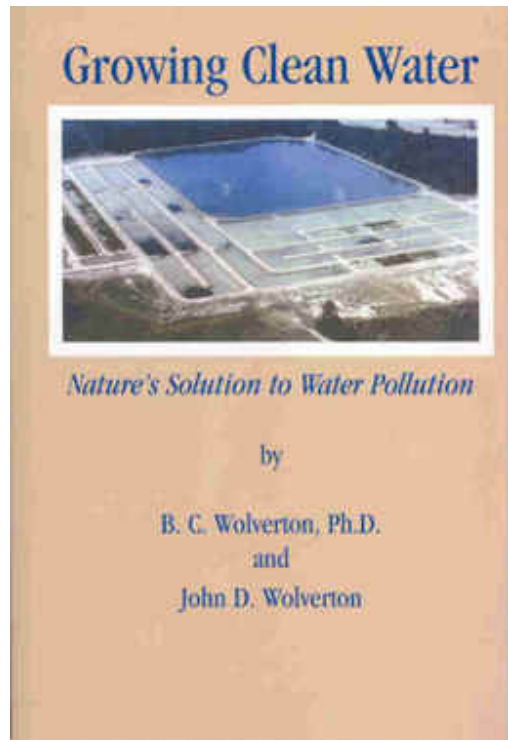
Growing Clean Water is a great presentation of plant-based wastewater management systems, including their many forms, their chemistry, and their success factors. Unlike technical guides to wastewater management, this book is approachable for both designers and laypeople.

Growing Clean Water is written by scientists Bill Wolverton and John Wolverton. Bill Wolverton is the author of *Growing Clean Air* and a retired scientist formerly associated with the United States National Aeronautics and Space Administration (NASA). He reports the results of NASA studies of wastewater treatment with plants. Particularly helpful is information about why wetlands fail. The most successful wetlands systems feature larger media (stones) and ample void spaces. They are best designed shallow to provide aerobic conditions that support faster-acting microbial transformation.

The book also covers how rock/plant filters (a family of wetlands and planted evapotranspiration systems) can be used to optimize conventional septic tank and soil absorption systems, mound systems, and swine/poultry wastewater systems. It also addresses a study of urine as a fertilizer, BOD removal abilities of aquatic and semi-aquatic plants, rock/plant filter remediation of toxics, and plants recommended for wastewater treatment.

There are some case studies of onsite and large-scale rock/plant filters, although all of them are in warmer climates. Wolverton features his own systems, however this bit of promotion is just a small part of a book full of helpful information and study results.

Growing Clean Water is an easy read and a great introduction for laypeople, students, designers and engineers to opportunities for better wastewater management with plants.



Additional information *Carol Steinfeld is the projects director of the Center for Ecological Pollution Prevention (CEPP). CEPP has carried this book for one year as a resource and a complement to its books, "The Composting Toilet System Book" and "How to Build a Washwater Garden".*

For its forthcoming book, "Reusing the Resource: Adventures in Wastewater Recycling", CEPP seeks submissions of case studies of existing onsite and multi-user plant-based wastewater recycling systems. Contact CEPP at: EcoP2@hotmail.com

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