



CONSTRUCTED WETLANDS

CURRENT TOPIC

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NCAT Agriculture Specialist
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Constructed wetlands are engineered marshes that duplicate natural processes to cleanse water. They can be used to process livestock effluent, human wastes, and drainage water, and for other purposes. Since constructed wetland design varies with the characteristics of the specific site, all designs should be prepared and reviewed on a site-by-site basis. Planning and designing should be conducted in coordination with state and local agencies to take advantage of available assistance and avoid regulatory problems. Several articles are enclosed that discuss the various uses and benefits of constructed wetlands.

Information on this subject is becoming more abundant as people find out how well constructed wetlands work. The Small Flows Clearinghouse (1) can provide a 164-page free design manual called *Constructed Wetland Treatment of Municipal Wastewater*. Ask for item number WWBKDM-98. They also have a wide variety of other publications that are listed in their free catalogue.

Perhaps the bible of wastewater treatment using constructed wetlands, D.A. Hammer's 1989 book *Constructed Wetlands for Wastewater Treatment* (2), covers the subject from A to Z. Topics include general principles, case histories, design, construction, operation, and results from the field and laboratory. This book may be obtained from local libraries, through interlibrary loan, or through bookstores.

Several useful publications are available free from the Environmental Protection Agency's National Service Center for Environmental Publications (3). Four of them are listed below:

- Constructed Wetlands For Wastewater Treatment And Wildlife Habitat: 17 Case Studies. EPA Number: 832R93005
- Constructed Wetlands For Animal Waste Treatment: Manual On Performance, Design, And Operation With Case Histories. EPA Number: 855B97001
- Constructed Wetlands Treatment Of Municipal Wastewaters {Manual}. EPA Number: 625R99010
- Constructed Wetlands And Wastewater Management For Confined Animal Feeding Operations. EPA Number: 855K97001

There are many Web sites on constructed wetlands—a keyword search using “constructed wetlands” turned up nearly 6,000 sites.

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References

- 1) National Small Flows Clearinghouse
West Virginia University
NRCCE-NSFC
P.O. Box 6064
Morgantown, WV 26506-6064
800-624-8301
304-293-4191
<http://www.nesc.wvu.edu/nsfc/>
- 2) Hammer, D.A. 1989. Constructed Wetlands for Wastewater Treatment. Lewis Publishers, Inc., Chelsea, MI. 831 p.
- 3) EPA National Service Center for Environmental Publications
USEPA-NSCEP
P.O. Box 42419
Cincinnati, OH 45242-0419
1-800-490-9198
FAX: 513-489-8695
E-mail: ncepimal@one.net
<http://www.epa.gov/ncepi/>

Enclosures

- Bankson, Dwain. 1995. Wetlands offer practical solutions. National Hog Farmer. October 15. p. N-O.
- Farrell, Molly. 1996. Purifying wastewater in greenhouses. BioCycle. January. p. 30-33.
- Gillette, B. 1995. Constructed wetlands show promise. The Furrow. Vol. 100, No. 4. p. 29-30.
- Posadas, B.C., and M.W. LaSalle. 1998. Use of constructed wetlands in catfish production. MAFES Research Highlights. Winter. p. 18.

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