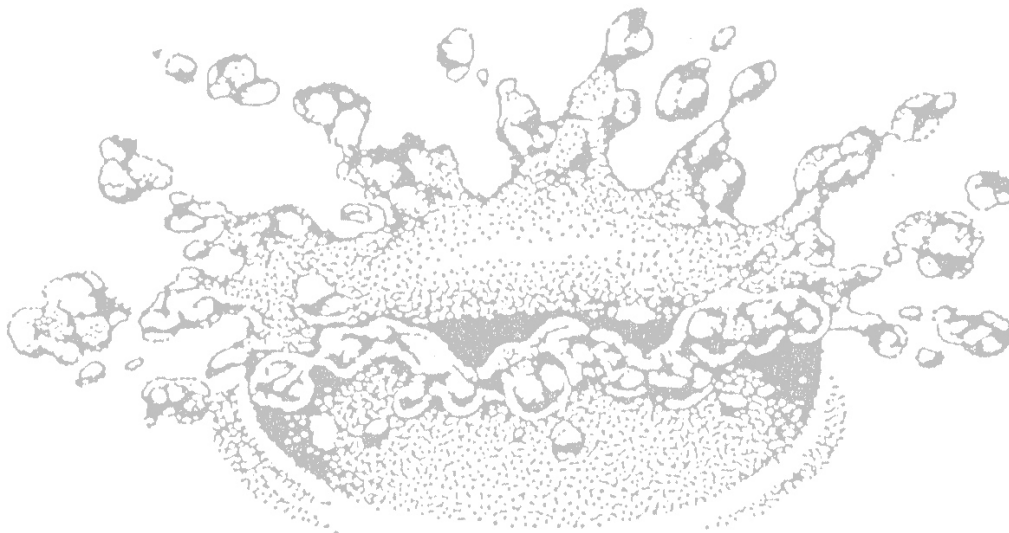
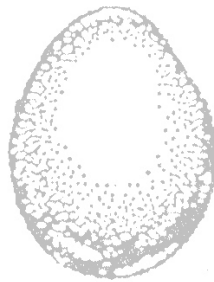


*Water Quality Educational Materials*



February 2004

This booklet lists and describes water quality educational materials provided by Arizona Cooperative Extension. If you have any questions about this booklet or the materials described herein, please feel free to contact Dr. Kitt Farrell-Poe, Water Quality Extension Specialist at telephone number 928-782-3836 or at email address [kittfp@ag.arizona.edu](mailto:kittfp@ag.arizona.edu). Updates will be posted on the Arizona Cooperative Extension Water Quality home page: <http://ag.arizona.edu/waterquality/WaterQualityIndex.htm>

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# ANIMAL WASTE MANAGEMENT

## Fact Sheets

**Title:** *Collection and Storage of Agricultural Animal Wastes and Wastewater (Farm\*A\*Syst series)*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** adult

**Abstract:** 1998, 2 pp., PDF (32 kb)

**Title:** *Manure Use and Management (Farm\*A\*Syst series)*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** adult

**Abstract:** 1998, 2 pp. PDF (31 kb)

## Slide Presentations

**Title:** *Farm Animal Mortality Composting (with script)*

**Source:** Maryland Cooperative Extension Service

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 48 slide set (1996)

**Title:** *On-Farm Composting (with script)*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 26 slide set (1997)

# ONSITE WASTEWATER TREATMENT

## Fact Sheets

**Title:** *Antibacterial Products in Septic Systems*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** Arizona Cooperative Extension fact sheet AZ1258, 2001, 2 pp., PDF (55 kb)

**Title:** *Inspecting Your Household Septic System*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** Arizona Cooperative Extension fact sheet AZ1159, 2000, 3 pp., PDF (24 kb)

**Title:** *Maintaining Your Septic Tank*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** Arizona Cooperative Extension fact sheet AZ1160, 2000, 2 pp., PDF (76 kb)

**Title:** *Managing Your Household Septic System*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** Arizona Cooperative Extension fact sheet AZ1161, 2000, 3 pp., PDF (28 kb)

**Title:** *Mound Systems: Alternative Onsite Wastewater Treatment*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** Arizona Cooperative Extension fact sheet AZ1010, 1998, 2 pp., PDF (52 kb)

**Title:** *Operation and Maintenance Tips for Your Septic System*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** Arizona Cooperative Extension fact sheet AZ1175, 2000, 2 pp., PDF (23 kb)

**Title:** *RV Holding-Tank Treatments & Deodorizers in Septic Systems*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** Arizona Cooperative Extension fact sheet AZ1233, 2001, 2 pp., PDF (23 kb)

**Title:** *Understanding Your Household Septic System*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** Arizona Cooperative Extension fact sheet AZ1158, 2000, 2 pp., PDF (295 kb)

## **Books & Workbooks**

**Title:** *The Composting Toilet System Book: A practical guide to choosing, planning and maintaining composting toilet systems, an alternative to sewer and septic systems*  
**Source:** The Center for Ecological Pollution Prevention  
**Address:** P.O. Box 1330, Concord, MA 01742-1330  
**Phone #:** 978-369-9440  
**Web Site:**  
**Cost:** \$33.25 (plus shipping & handling)  
**Audience:** general public  
**Abstract:** Composting toilet systems and other ecological wastewater management methods are emerging as viable and cost-saving alternatives to wastewater disposal systems worldwide. Find out why-and how to choose, install, and maintain them. In the book, you will find descriptions of more than 40 systems – both manufactured and site-built – and their sources; compatible toilet stools and micro-flush toilets; tips on choosing, planning, installing, and maintaining your composting toilet system; the experiences of owner-operators worldwide; graywater reuse systems; and regulations and advice about getting your system approved. (at YAC)

**Title:** *The Septic System Owner's Manual*

**Source:** Shelter Publications, Inc.

**Address:** P.O. Box 279, Bolinas, CA 94924

**Phone #:** 800-307-0131, 415-868-0280

**Cost:** \$14.95, plus \$3.95 shipping charges

**Audience:** general public

**Abstract:** This book describes the conventional gravity-fed septic system, how it works, how it should be treated (what should and should not go down the drain), how it should be maintained, and what to do if things go wrong. There is also basic information on the recent evolution in composting toilet systems, designs for simple graywater systems, and some of the typical alternatives to the standard, gravity-fed septic systems. (at YAC)

**Title:** *Wastewater Treatment Alternatives for Small Communities*

**Source:** The Ohio State University

**Address:** Karen Mancel, Agricultural Engineering, The Ohio State University, 590 Woody Hayes, Drive, Columbus, OH 43210

**Phone #:** 614-292-6131

**Cost:**

**Audience:** educators, general public

**Abstract:** Part of an educational program to teach local officials about wastewater treatment. A five-session workshop covers wastewater treatment, alternatives, needs assessment, system management, and resource gathering. (at YAC)

## **Displays - Tabletop**

**Title:** *Household Septic System*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe or the following County Extension Offices: Cochise, Graham, La Paz, Maricopa, Mohave, Navajo Nation, Yavapai

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 3-panel tabletop booth display concerning the operation and maintenance of household septic systems. Approximate size: each panel = 22 " wide x 32" tall - three panels require a minimum of a 6' table. (at YAC)

## **Physical Models**

**Title:** *Conventional System: Septic Tank with Soil Absorption Field*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe or the following County Extension Offices: La Paz, Mohave, Yavapai

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** plexiglass working model with two trenches that can demonstrate the infiltration and percolation abilities of two different soil types. (at YAC)

**Title:** *Septic Tank Model*

**Source:** Goldleaf Plastics, Inc.

**Contact:** Goldleaf Plastics, Inc., P.O. Box 426, 6646 County Road 137, Waite Park, MN 56387

**Phone #:** 320-252-8810

**Cost:** \$128 (discounted price if ordering the *Soil Treatment System Model*)

**Audience:** general public

**Abstract:** The model displays a three dimensional view of the functions of septic tanks. Made of durable clear acrylic, it features scale construction and realistic details of the three layers within a septic tank (scum, sludge, and effluent). Size: 20" wide, 10" deep, 10" high. (at YAC)

**Title:** *Soil Treatment System Model*

**Source:** Goldleaf Plastics, Inc.

**Contact:** Goldleaf Plastics, Inc., P.O. Box 426, 6646 County Road 137, Waite Park, MN 56387

**Phone #:** 320-252-8810

**Cost:** \$295 (discounted price if ordering the *Septic Tank Model*)

**Audience:** general public

**Abstract:** The model displays a three dimensional view of the schematics of soil treatment systems. Made of durable acrylic, it features scale construction, realistic details including rock, sand, grass, water, etc., and three model pieces snap together for display. Assembled size: 47.5" wide, 27" tall. (at YAC)

## Overhead Presentations

**Title:** *RV Park Septic System Operation & Maintenance* (with script)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 60 color overheads; also available as PowerPoint presentation (2001)

## PowerPoint Presentations

**Title:** *RV Holding-Tank Deodorizers* (with notes pages)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** general public

**Abstract:** Overview of how RV deodorizers, treatments, and additives can affect onsite wastewater systems. 16 slides (2,858 KB), incomplete presentation, 2001



**Title:** *RV Park Septic System Operation & Maintenance* (with notes pages)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** general public

**Abstract:** Presents overview of conventional septic systems, risks or stressors to those systems, and operation and maintenance of septic systems. 60 slides (7,839 KB), 2001

**Title:** *UA Onsite Wastewater Education* (no notes pages)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** general public

**Abstract:** Presents overview of the Arizona Cooperative Extension Onsite Wastewater Education program: past, current, and future activities. 28 slides (7,679 KB), 2001

## Videos

**Title:** *Care & Feeding of Your Septic Tank*

**Source:** National Small Flows Clearinghouse

**Address:** West Virginia University, P.O. Box 6064, Morgantown, WV 26506-6064

**Phone #:** 800-624-8301

**Web Site:** [http://www.nesc.wvu.edu/nsfc/nsfc\\_homepage.html](http://www.nesc.wvu.edu/nsfc/nsfc_homepage.html)

**Cost:** \$10.00

**Audience:** septic system owners, adults

**Abstract:** Discusses history of onsite treatment, septic systems and reasons that they fail, and how to operate and maintain a septic tank. 16 minutes (at YAC).

**Title:** *Septic Systems Revealed: A Guide to Operation, Care, and Maintenance*

**Source:** University of Minnesota Extension Service Distribution Center

**Address:**

**Phone #:** 800-876-8636

**Web Site:** <http://www.bae.umn.edu/~septic/>

**Cost:** \$15.00

**Audience:** septic system owners

**Abstract:** A 23-minute video showing how an actual septic system works and demonstrates proper pumping methods. Includes tips on household water conservation and product use. (1996) 23 minutes (at YAC).

**Title:** *Your Septic System: A Guide for Homeowners*

**Source:** National Small Flows Clearinghouse

**Address:** West Virginia University, P.O. Box 6064, Morgantown, WV 26506-6064

**Phone #:** 800-624-8301

**Web Site:** [http://www.nesc.wvu.edu/nsfc/nsfc\\_homepage.html](http://www.nesc.wvu.edu/nsfc/nsfc_homepage.html)

**Cost:** \$10.00

**Audience:** septic system owners

**Abstract:** Uses husband-wife story as method of explaining how to operate and maintain a septic system; good do's and don't section. 11 minutes (at YAC).

# SAFE DRINKING WATER

## Fact Sheets

**Title:** *Arsenic in Drinking Water*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1999, 2 pp., PDF (25 kb)

**Title:** *Choosing Home Water Treatment Devices*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Drinking Water Standards*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1998, 42 pp., PDF (31 kb)

**Title:** *Health Effect of Drinking Water Contaminants*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1998, 2 pp., PDF (33 kb)

**Title:** *Is There Lead in Your Drinking Water?*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Laboratories Conducting Soil, Plant, Feed, or Water Testing*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1999, 1 p., PDF (20 kb)

**Title:** *Microorganisms in Your Well Water*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Nitrates in Your Drinking Water*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (27 kb)

**Title:** *Reverse Osmosis Units*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Shock-Chlorination of Domestic Wells*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Test Your Well for Safety*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1994, 1 p., PDF (28 kb)

**Title:** *Water Facts Series*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** \$1.75  
**Audience:** general public  
**Abstract:** 1994, 72 pp.

**Title:** *Water Wells (FARM\*A\*SYST)*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 2 pp., PDF (31 kb)

## **Idea Booklets for Hands-On Activities**

**Title:** *Arizona Water Quality Education Activities for Grades 1-12*  
**Source:** Arizona Cooperative Extension  
**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364  
**Web Site:** <http://ag.arizona.edu/waterquality/activitiesindex.html>.  
**Phone #:** 928-782-3836  
**Cost:** free  
**Audience:** youth (grades 1-12)  
**Abstract:** This activity booklet includes directions for ten hands-on activities demonstrating drinking water, groundwater, and surface water concepts and a glossary. Each activity consists of the purpose of the lesson, background material for the teacher, list of materials, procedures, and extensions to the lesson. 26 pp. (at YAC)

**Title:** *The Tapwater Tour*  
**Source:** LaMotte Company  
**Address:** P.O. Box 329, Chestertown, MD 21620  
**Web Site:** <http://www.lamotte.com>  
**Phone #:** 800-344-3100  
**Cost:** \$23.45 (plus shipping and handling)  
**Audience:** youth (grades 3-8)  
**Abstract:** The goal of this hands-on test kit and mini-curriculum is to have students discover their drinking water for what it really is. This program introduces students to scientific thought while stimulating curiosity and enthusiasm. 1989 (at YAC)

**Title:** *The Water Sourcebooks*  
**Source:** Water Environment Federation  
**Address:** 601 Wythe Street, Alexandria, VA 22314-1994  
**Phone #:** 800-666-0206

**Web Site:** <http://www.wef.org>

**Cost:**

**Audience:** youth (grades K-2, 3-5, 9-12)

**Abstract:** Educational program of supplemental activity guides targeting kindergarten through high school. Each 3-ring binder includes five chapters: Introduction to Water, Drinking Water and Wastewater Treatment, Groundwater Resources, Surface Water, and Wetlands and Coastal Waters. All activities include “hands-on” components and are designed to blend with existing curricula in the areas of general science, language arts, math, social studies, art, and, in some cases, reading or other areas. 1998 (at YAC)

## **Displays - Tabletop**

**Title:** *Safe Drinking Water*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe or the following County Extension Offices: Cochise, Graham, La Paz, Maricopa, Mohave, Navajo Nation, Yavapai

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 3-panel tabletop booth display concerning topics of safe drinking water: testing, treating, and protecting. Approximate size: each panel = 22 “ wide x 32" tall - three panels require a minimum of a 6' table.

## **Equipment & Test Kits**

**Title:** *Nitrate Test Kits (Hach)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Two different types of kits for testing nitrate-nitrogen are available: test strips and color discs, both use colorimetry to measure level of nitrate-nitrogen. The test strips can be used for nitrate ranges between 0-50 mg/L (25 strips per bottle), and color comparator chart is on bottle. The color discs can be used for nitrate ranges between 0-50 (1.0 mg/L increments). Each kit includes all necessary reagents for testing nitrate-nitrogen.

**Title:** *Nitrate Test Kit (Agri-Screen)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Test strip method for nitrate ranges between 0-250 mg/L (50 strips per package). Kit includes strips and separate color comparator chart.

**Title:** *Nitrate Test Kits (CHEMetrics, Inc.)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Two kits for testing two ranges of nitrate-nitrogen are available: 1 - 5 mg/L (0.5 mg/L increment) and 25 - 125 mg/L (12.5 mg/L increment). Both use colorimetry to determine nitrate-nitrogen levels. Each kit includes all necessary reagents for testing nitrate-nitrogen.

**Title:** *pH Test Kit (Hach)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Test strip method for pH ranges between 2 - 9 (0.5 pH units increment). Kit includes strips and separate color comparator chart.

## Slide Presentations

**Title:** *Drinking Water Contaminants: Health Effects and Standards* (with script)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 56 slide set (1992). (at YAC)

**Title:** *Drinking Water Testing and Interpreting* (with script and cassette)

**Source:** Oregon State University Extension Service

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 69 slide set (1990). (at YAC)

**Title:** *The Health Effects of Drinking Contaminated Water* (with script and cassette)

**Source:** Oregon State University Extension Service

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 80 slide set (1990). (at YAC)

**Title:** *Nitrate in Drinking Water* (with script and cassette)  
**Source:** Ohio Cooperative Extension Service  
**Contact:** Kitt Farrell-Poe  
**Phone #:** 928-782-3836  
**Cost:** free for loan  
**Audience:** general public  
**Abstract:** 50 slide set (1988). (at YAC)

**Title:** *Water Testing* (with cassette)  
**Source:** Ohio Cooperative Extension Service  
**Contact:** Kitt Farrell-Poe  
**Phone #:** 928-782-3836  
**Cost:** free for loan  
**Audience:** general public  
**Abstract:** 50 slide set (1988). (at YAC)

**Title:** *Water Treatment* (with script and cassette)  
**Source:** Oregon State University Extension Service  
**Contact:** Kitt Farrell-Poe  
**Phone #:** 928-782-3836  
**Cost:** free for loan  
**Audience:** general public  
**Abstract:** 60 slide set (1990). (at YAC)

## **PowerPoint Presentations**

**Title:** *Safe Drinking Water* (with notes pages)  
**Source:** Arizona Cooperative Extension  
**Contact:** Kitt Farrell-Poe  
**Phone #:** 928-782-3836  
**Cost:** free  
**Audience:** general public  
**Abstract:** Overview of drinking water standards and home water treatment devices. 50 slides (14,508 KB), 2001



# WATER CONSERVATION

## Fact Sheets

**Title:** *Harvesting Rainwater for Landscape Use*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 39 pp., PDF (923 kb), HTML version available

**Title:** *How to Save Water and Have Healthier Plants*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:**  
**Audience:** general public  
**Abstract:** 1995, 2 pp.

## Displays - Tabletop

**Title:** *Water Conservation*  
**Source:** Arizona Cooperative Extension  
**Contact:** Kitt Farrell-Poe  
**Phone #:** 928-782-3836  
**Cost:** free for loan  
**Audience:** general public  
**Abstract:** 3-panel tabletop booth display concerning topics for conserving water in and around the home. Approximate size: each panel = 22 " wide x 32" tall - three panels require a minimum of a 6' table.

## Software

**Title:** *Utah Residential Water Conservation Techniques*  
**Source:** Arizona Cooperative Extension  
**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364  
**Phone #:** 928-782-3836  
**Cost:** \$10.00  
**Audience:** youth (grades 4-12) and adults  
**Abstract:** This IBM-compatible software program discusses water conservation techniques in and around the home. It is designed to be self-pacing and interactive by using hyper-text and computer graphics.

## Videos

**Title:** *Saving Water—The Conservation Unit*

**Source:** Water Environment Federation

**Address:** Publications Order Dept., 601 Wythe St., Alexandria, VA 22314-1994

**Phone #:** 800-666-0206

**Cost:** \$49.00

**Audience:** youth, grades 5-9

**Abstract:** Set in the future, an animated dinosaur is a museum's exhibit curator and explains how all of the earth's water, except for one small vial, has been wasted or polluted beyond use. Students travel to the future to see what can and might happen. Students also learn what they can do today. The package includes a video, teacher's guide, and 20 student workbooks. (at YAC).

# WATER QUALITY

## Fact Sheets

**Title:** *Arizona WET - Water Education for Teachers*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** \$13.50

**Audience:** educators

**Abstract:** 1995, 320 pp.

**Title:** *Arizona's Changing Rivers: How People Have Affected the Rivers (bibliography)*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** \$5.00

**Audience:** general public

**Abstract:** 1997, HTML version also available

**Title:** *Arizona's Changing Rivers: How People Have Affected the Rivers (book & bibliography)*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** \$17.50

**Audience:** general public

**Abstract:** 1997, 200 pp.

**Title:** *Farm\*A\*Syst: Farm/Ranch Self-Assessment System for Arizona*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** \$5.00

**Audience:** general public

**Abstract:** 1997, 110 pp.

**Title:** *Fertilizer Storage and Handling (Farm\*A\*Syst Series)*

**Source:** Arizona Cooperative Extension

**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>

**Phone #:** 520-621-7177

**Cost:** free on web

**Audience:** general public

**Abstract:** 1998, 2 pp., PDF (31 kb)

**Title:** *Groundwater Quality Database for Nitrate in Maricopa County*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** \$4.00  
**Audience:** general public  
**Abstract:** 1995, 98 pp.

**Title:** *Hazardous Waste Management (Farm\*A\*Syst series)*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 2 pp., PDF (31 kb)

**Title:** *Pesticide Storage and Handling (Farm\*A\*Syst series)*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 2 pp. PDF (31 kb)

**Title:** *Storage of Petroleum Products (Farm\*A\*Syst series)*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 2 pp. PDF (31 kb)

**Title:** *Treatment of Household Wastewater (Farm\*A\*Syst series)*  
**Source:** Arizona Cooperative Extension  
**Web Site:** <http://ag.arizona.edu/pubs/quarterly.html>  
**Phone #:** 520-621-7177  
**Cost:** free on web  
**Audience:** general public  
**Abstract:** 1998, 2 pp. PDF (31 kb)

## **Idea Booklets for Hands-On Activities**

**Title:** *Arizona Natural Resource Wonders: K-12 Curriculum and Activity Guide*  
**Source:** University of Arizona Cooperative Extension  
**Address:** Cochise County Cooperative Extension, 450 S. Haskell, Willcox, AZ 85643 [or email

wonders@ag.arizona.edu]

**Phone #:** 520-384-3594

**Cost:** \$25

**Audience:** grades K-12, informal and formal educators

**Abstract:** This curriculum contains extensive background information on natural resources with helpful graphics in each of the four topic areas: Land & Climate, Understanding Soils, Hydrology & Watersheds, and Plants & Communities. Activities and useful handouts are also included. (At YAC)

**Title:** *Arizona Water Quality Education Activities for Grades 1-12*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Web Site:** <http://ag.arizona.edu/waterquality/activitiesindex.html>

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** youth (grades 1-12)

**Abstract:** This activity booklet includes directions for ten hands-on activities demonstrating drinking water, groundwater, and surface water concepts and a glossary. Each activity consists of the purpose of the lesson, background material for the teacher, list of materials, procedures, and extensions to the lesson. 26 pp. (at YAC)

**Title:** *Arizona Water Story*

**Source:** Central Arizona Project

**Address:** 23636 North 7<sup>th</sup> Street, Phoenix, AZ 85024

**Phone #:** 888-891-5795, 602-869-2138

**Cost:**

**Audience:** youth (grades 4-6)

**Abstract:** Designed to be used as a supplement to the study of Arizona as a state or a physical science unit on natural resources. Materials include lesson plans with worksheets, Arizona Water Map, Hydrologic Cycle Poster, Video: *The Arizona Water Story*, and computer game: *Arizona Aguadrop's Adventure*. (at YAC)

**Title:** *Environmental Resource Guide – Nonpoint Source Pollution Prevention*

**Source:** Air & Waste Management Association

**Address:** Public Education Department, P.O. Box 2861, Pittsburgh, PA 15230

**Phone #:** 412-232-3444

**Cost:**

**Audience:** K-2

**Abstract:** Presents basic information on the relationships between land use and water quality – specifically nonpoint source water pollution – in a series of 10 factsheets and 15 activities. This guide provides kindergarten and primary school teachers with a concise introduction to nonpoint source pollution issues so they can present this basic information to their students (1993). (at YAC)

**Title:** *Environmental Resource Guide – Nonpoint Source Pollution Prevention*

**Source:** Air & Waste Management Association

**Address:** Public Education Department, P.O. Box 2861, Pittsburgh, PA 15230

**Phone #:** 412-232-3444

**Cost:**

**Audience:** 3-5

**Abstract:** Presents basic information on the relationships between land use and water quality – specifically nonpoint source water pollution – in a series of 10 factsheets and 15 activities. This guide provides elementary school teachers with a concise introduction to nonpoint source pollution issues so they can present this basic information to their students (1993). (at YAC)

**Title:** *Environmental Resource Guide – Nonpoint Source Pollution Prevention*

**Source:** Air & Waste Management Association

**Address:** Public Education Department, P.O. Box 2861, Pittsburgh, PA 15230

**Phone #:** 412-232-3444

**Cost:**

**Audience:** 6-8

**Abstract:** Presents basic information on the relationships between land use and water quality – specifically nonpoint source water pollution – in a series of 10 factsheets and 15 activities. This guide provides middle school science, math, social studies, and language arts teachers with a concise introduction to nonpoint source pollution issues so they can present this basic information to their students (1992). (at YAC)

**Title:** *The Family Action Plant Book: Environmental Issues*

**Source:** National Association for Family and Community Education

**Address:** <http://www.nafce.org/index.html>

**Phone #:**

**Cost:** no longer in print

**Audience:** educators, adults

**Abstract:** (no longer in print) An Environmental Issue Action Plan that offers information and suggested activity on the topics of water quality, recycling, and disposal of hazardous household waste to create an awareness of the benefits of recycling and to improve water, land, and air quality by properly disposing of waste materials. Each topic has visual aids, lesson plans, and suggested activities. (at YAC)

**Title:** *Groundwater Flow Demonstration Model Activities for Grades 6-12*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** youth (grades 6-12)

**Abstract:** This activity booklet includes directions for four hands-on activities demonstrating groundwater movement concepts using a groundwater flow demonstration model, and glossary. Each activity consists of the purpose of the lesson, background material for the teacher, list of materials, procedures, and extensions to the lesson. 22 pp. (at YAC)

**Title:** *A Hidden Treasure – Instructional Materials for Groundwater Resource Protection*

**Source:** National Vocational Agriculture Teachers Association

**Address:** National FFA Foundation, 310 N. Midvale Blvd., Suite 308, P.O. Box 5117, Madison, WI 53705

**Phone #:** 608-238-4222

**Cost:**

**Audience:** youth (grades 9-12) and adult

**Abstract:** Developed for use by agricultural education teachers and other to develop an awareness of the relationship of agriculture and groundwater. The activities are targeted for high school students but can also be used at the junior high level or for adult education programs. Designed for teachers to use as a supplement to their normal course offerings. (at YAC)

**Title:** *Investigating Your Environment – Intermountain Region*

**Source:** USDA - Forest Service

**Address:** Region 4 Office, USDA Forest Service, Federal Building, 324 25th Street , Ogden, Utah 84401

**Phone #:** 801-625-5306

**Cost:**

**Audience:** youth, educators

**Abstract:** A huge 3-ring binder full of activities: soil, water, forests, plant relationships, wildlife, measuring, build community, desert, dunes, ponds, range, riparian, wilderness. Plus sections on planning an environmental study area, investigating an environmental issue, land use simulation, school-yard activities, natural resources in an urban environment, developing environmental investigations, interpreting your environment, and geologic history. (at YAC)

**Title:** *Soil, Water and Land Use: Understanding Pesticide Interaction*

**Source:** University of Florida

**Address:** IFAS Publications Distribution Center, P.O. Box 110011, Gainesville, FL 32611-0011

**Phone #:** 904-392-1764

**Cost:** \$8.00

**Audience:** upper middle and high school students, teachers

**Abstract:** This is an activity- and computer-based teaching kit published in a durable 3-ring binder. The 75-page teaching kit aims to increase the understanding of soil properties and their effects on pesticide behavior and movement. The hands-on learning activities use simple materials to demonstrate concepts such as water movement and storage in aquifers, soil infiltration and runoff, sorption rates and many others. Jointly produced by the Soil and Water Science Dept. and Dept. of 4-H and Other Youth Programs, University of Florida. (at YAC)

**Title:** *Water Matters, Volumes 1-3*

**Source:** National Science Teachers Association

**Address:** NSTA, P.O. Box 90214, Washington, DC 20090-0214

**Phone #:** 800-277-5300 or 301-638-0200, 9 am to 5 pm ET

**Web Site:** <http://www.nsta.org/index.html>, choose ScienceStore

**Cost:** member price - \$1.43, non-member price - \$1.79, also available in a discounted set.

**Audience:** youth (grades K - 8)

**Abstract:** A series of three teachers guides released by U.S. Geological Survey Water Resources Educational Initiative and NSTA. The series is designed to help teachers investigate the integral role that water plays in our lives with students grades three through eight. The series can be

integrated into almost any science curriculum. Volume 1 addresses “Wetlands, Water Use, and Wastewater Treatment.” Volume 2 addresses “Navigation, Groundwater and Water Quality.” Volume 3 addresses "Oceans, Watersheds, and Hazardous Waste." The introduction lists goals and how to use the materials. Teachers are provided a clearly-written background section on the major concepts. Next, the guide includes a variety of activities, from analyzing and interpreting data to making models that demonstrate the basic wastewater treatment methods. Be prepared for lots of relevant math and graphing! 1994 (at YAC)

**Title:** *The Water Sourcebooks*

**Source:** Water Environment Federation

**Address:** 601 Wythe Street, Alexandria, VA 22314-1994

**Phone #:** 800-666-0206

**Web Site:** <http://www.wef.org>

**Cost:**

**Audience:** youth (grades K-2, 3-5, 9-12)

**Abstract:** Educational program of supplemental activity guides targeting kindergarten through high school. Each 3-ring binder includes five chapters: Introduction to Water, Drinking Water and Wastewater Treatment, Groundwater Resources, Surface Water, and Wetlands and Coastal Waters. All activities include “hands-on” components and are designed to blend with existing curricula in the areas of general science, language arts, math, social studies, art, and, in some cases, reading or other areas. 1998 (at YAC)

## **Books & Workbooks**

**Title:** *Field Manual for Water Quality Monitoring: An Environmental Education Program for Schools*

**Source:** Earth Force

**Address:** 1908 Mt. Vernon Ave. 2<sup>nd</sup> Floor, Alexandria, VA 22301

**Phone #:** 703-299-9400

**Web Site:** [www.earthforce.org](http://www.earthforce.org)

**Cost:** \$19.95 (Thomson-Share Printers, 7300 Joy Road, Dexter, MI 48130; 800-228-0810)

**Audience:** educators

**Abstract:** This manual details nine chemical/physical water quality tests (dissolved oxygen, fecal coliform, pH, biochemical oxygen demand, temperature, total phosphate, nitrate, turbidity, and total solids) and methods for biological monitoring. It also includes chapters on Watershed analysis, land use practices, international rivers, and handouts. The Field manual is used in many national and international watershed programs linked through the Global Rivers Environmental Education Network (GREEN). (at YAC)

**Title:** *Monitor's Handbook, The*

**Source:** LaMotte Company

**Address:** P.O. Box 329, Chestertown, MD 21620

**Phone #:** 800-344-3100

**Cost:** \$8.95 (plus shipping and handling)

**Audience:** educators



**Abstract:** Provides the background and specific elements necessary to successfully monitor the quality of natural waters. It includes a discussion on the reasons for monitoring, water quality measurement, and the significant role of the watershed in monitoring your stream, lake, river, or estuary. This handy reference guide provides an extensive description of the physical, chemical, and biological factors of water quality and the analytical procedures for their measurement. There is also a chapter on water facts and conversions, glossary of terms, and basic program planning (product # 1507). (at YAC)

**Title:** *Stream Scene: Watersheds, Wildlife, and People, The*

**Source:** Aquatic Education Specialist, Oregon Department of Fish

**Address:** P.O. Box 59, Portland, OR 97207

**Phone #:**

**Cost:**

**Audience:** educators for grades 6 - 12

**Abstract:** Produced to look at watersheds from many perspectives. The arrangement of the curriculum will guide the user from the broad spectrum of watershed systems, riparian areas, and their respective components to the specific nature or streams and aquatic life they support. Each unit includes a content section (or background information) generally written for the teacher, but may be presented to students as a reading assignment or in lecture/discussion format; activity extensions; bibliographic entries; and activities to develop and illustrate the concepts presented. (at YAC)

**Title:** *Streamkeeper's Field Guide*

**Source:** Adopt-A-Stream Foundation and Wildlife

**Address:**

**Phone #:** 425-316-8592

**Web Site:** [www.streamkeeper.org](http://www.streamkeeper.org)

**Cost:** \$29.95 for the Field Guide, \$19.95 for video

**Audience:** educators

**Abstract:** Provides a comprehensive and entertaining tool to understanding watersheds and stream ecology. Learn how to conduct a watershed inventory, map a stream reach, and measure stream sinuosity, pool-to-riffle ratio, bottom composition, flow, and more. The Adopt-A-Stream Foundation, makers of the Guide, also offers a companion video called *The Streamkeeper*. (at YAC)

**Title:** *USDA-NRCS Stream Visual Assessment Protocol, 1998*

**Source:** USDA - Natural Resources Conservation Service; Bruce Newton, Leader, Water Quality Team, [bnewton@wcc.nrcs.usda.gov](mailto:bnewton@wcc.nrcs.usda.gov).

**Address:**

**Phone #:** 503-414-3055

**Web Site:**

**Cost:**

**Audience:** Extension agents, NRCS field agents

**Abstract:** Provides an easy-to-understand assessment procedure to evaluate the condition of aquatic ecosystems associated with streams. The protocol is designed to be conducted with the landowner. The primary uses of the protocol are for the inventory and analysis steps of developing a conservation plan, priority setting, and pre- and post-assessments to evaluate the

effectiveness of conservation plans. The protocol addresses water quality and physical habitat resource concerns. Provided for the use of field office staff and partners to evaluate the overall ecological condition of streams. (1998) (at YAC)

**Title:** *Utah Stream Team*

**Source:** Utah State University Extension

**Address:** Nancy Mesner, Department of Geography and Earth Resources, 5240 Old Main Hill, Utah State University, Logan, UT 84322-5240

**Phone #:** 435-797-2465

**Web Site:** <http://www.ext.usu.edu/natres/wq>

**Cost:**

**Audience:** Extension agents, NRCS field agents

**Abstract:** Volunteer stream monitoring kit. Provides water quality procedures for physical properties (turbidity, temperature, stream flow, and stream shape); chemical properties (pH, dissolved oxygen, nutrients); and biological properties (macroinvertebrates). You can use this program to meet Utah State Core Curriculum Objectives, provide meaningful content and activities, expose students to new learning environments, and much more. (at YAC)

**Title:** *Water Quality Indicators Guide: Surface Waters*

**Source:** Terrene Institute

**Address:** 4 Herbert Street, Alexandria, VA 22305

**Phone #:** 703-548-5473

**Cost:** \$26.95 (plus shipping and handling)

**Audience:** educators, Extension agents, NRCS field agents

**Abstract:** This guide examines five major sources of agriculturally-related nonpoint source pollutants: sediment, nutrients, animal waste, pesticides, and salts. Field sheets are provided to enable the user to assess surface water quality problems easily and accurately and to select appropriate remedial practices. Contains good photos and schematic drawings to identify algae, plankton, insects, and fish and taxonomy keys for major invertebrates. Also contains a glossary and list of best management practices. (at YAC)

**Title:** *Watershed Science for Educators*

**Source:** Cornell University Media and Technology Services Resource Center

**Address:** 4 Herbert Street, Alexandria, VA 22305

**Phone #:** 607-255-2090

**Cost:** \$39 per package, shipping included

**Audience:** educators of middle school and high school students

**Abstract:** A 213-page packet for middle and high school teachers and students to incorporate the study of watersheds into science classes. The packet includes teachers' pages with objectives, preparation suggestions, and examples of pertinent questions. Background information gives the educator a foundation for each topic. Student activity pages and worksheets help the educator direct the lesson.

## **Displays - Tabletop**

**Title:** *Groundwater*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe or the following County Extension Offices: Cochise, Graham, La Paz, Maricopa, Mohave, Navajo Nation, Yavapai

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 3-panel tabletop booth display concerning topics for groundwater education: hydrologic cycle, Arizona's principal aquifers, contamination, and protection. Approximate size: each panel = 22 " wide x 32" tall - three panels require a minimum of a 6' table.

**Title:** *Surface Water*

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe or the following County Extension Offices: Cochise, Graham, La Paz, Maricopa, Mohave, Navajo Nation, Yavapai

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 3-panel tabletop booth display concerning surface water protection. Approximate size: each panel = 22 " wide x 32" tall - three panels require a minimum of a 6' table.

## **Equipment & Test Kits**

**Title:** *Nitrate Test Kits (Hach)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Two different types of kits for testing nitrate-nitrogen are available: test strips and color discs, both use colorimetry to measure level of nitrate-nitrogen. The test strips can be used for nitrate ranges between 0-50 mg/L (25 strips per bottle), and color comparator chart is on bottle. The color discs can be used for nitrate ranges between 0-50 (1.0 mg/L increments). Each kit includes all necessary reagents for testing nitrate-nitrogen.

**Title:** *Nitrate Test Kit (Agri-Screen)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Test strip method for nitrate ranges between 0-250 mg/L (50 strips per package). Kit includes strips and separate color comparator chart.

**Title:** *Nitrate Test Kits (CHEMetrics, Inc.)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Two kits for testing two ranges of nitrate-nitrogen are available: 1 - 5 mg/L (0.5 mg/L increment) and 25 - 125 mg/L (12.5 mg/L increment). Both use colorimetry to determine nitrate-nitrogen levels. Each kit includes all necessary reagents for testing nitrate-nitrogen.

**Title:** *pH Test Kit (Hach)*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** adults, teachers, educators

**Abstract:** Test strip method for pH ranges between 2 - 9 (0.5 pH units increment). Kit includes strips and separate color comparator chart.

## Physical Models

**Title:** *Groundwater Flow Demonstration Model*

**Source:** Arizona Cooperative Extension

**Address:** contact your County Extension Office

**Phone #:** 928-782-3836 (to locate models closest to you)

**Cost:** \$25 refundable deposit

**Audience:** youth (grades 4-12) and adults

**Abstract:** The groundwater models are used to demonstrate groundwater movement principles. The model is constructed with clear plexiglass which allows viewers to watch how the water within a groundwater system moves.

**Title:** *Watershed Model*

**Source:** Arizona Cooperative Extension

**Address:** contact your County Extension Office

**Phone #:** 928-782-3836 (to locate models closest to you)

**Cost:** \$25 refundable deposit

**Audience:** youth (grades 4-12) and adults

**Abstract:** The surface water models are used to demonstrate how activities on land affect the quality of the water in a watershed. It can show how water becomes polluted and how best management practices can prevent pollution. The model depicts land uses in a "typical" watershed -- urban, industrial/commercial, agricultural, forest, streambank, and lake shore.

## Software

**Title:** *WaterShed*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** \$10.00

**Audience:** youth (grades 8-12) and adults

**Abstract:** This IBM-compatible software program uses a multi-media format to explain what a watershed is and the water quality issues facing land uses, provide a quick overview of various watersheds being monitored in Utah, and provide a simulation gaming format for youth to make decisions on land use and the consequences of those land use decisions.

**Title:** *Utah Groundwater*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8th Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** \$10.00

**Audience:** youth (grades 5-12) and adults

**Abstract:** This IBM-compatible software program discusses groundwater concepts including the hydrologic cycle, types of aquifers, and groundwater contamination. It is designed to be self-paced and interactive by using hyper-text and computer graphics.

## **Slide Presentations**

**Title:** *Groundwater Contamination* (with script)

**Source:** Arizona Cooperative Extension

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free for loan

**Audience:** general public

**Abstract:** 28 slide set (1993)

## **PowerPoint Presentations**

**Title:** *Overview of the Total Maximum Daily Load Program* (no notes pages)

**Source:** Environmental Protection Agency

**Contact:** Kitt Farrell-Poe

**Phone #:** 928-782-3836

**Cost:** free

**Audience:** general public

**Abstract:** Overview of the EPA's Total Maximum Daily Load program. 19 slides (560 KB), 2001

## **Videos**

**Title:** *Dippy Duck*

**Source:** Imperial Irrigation District

**Address:** 333 East Barioni Blvd., Imperial, CA 92251

**Phone #:** 619-339-9416

**Cost:** ??

**Audience:** youth

**Abstract:** Using a classroom setting, animation, and video clips, this video explains to youngsters the dangers of playing in and around irrigation ditches. 10 minutes. (at YAC).

**Title:** *Groundwater Adventure, The*

**Source:** Water Environment Federation

**Address:** Publications Order Dept., 601 Wythe St., Alexandria, VA 22314-1994

**Phone #:** 800-666-0206

**Cost:** \$49.00

**Audience:** youth, grades 5-9

**Abstract:** The often puzzling concept of groundwater is graphically explained using a video game format. An animated “spokes-dinosaur” helps a live-action student gain points by preventing groundwater pollution from industrial, agricultural, and private residential sources. The price includes a video, teacher’s guide, and 20 student guides. (at YAC).

**Title:** *Home & Garden – Pests & Problems (Less-Toxic Home & Garden Video Series)*

**Source:** Central Contra Costa Sanitary District, Martinez, CA

**Address:**

**Phone #:** 925-228-9500

**Cost:**

**Audience:** adults, especially horticultural stores

**Abstract:** Third in a series of three IPM videos (also *Understanding Pesticides & IPM* and *Keeping the Home and Garden Healthy the Less Toxic Way*) this video describes various garden insects and strategies on how to eliminate or prevent future attacks of the various pests. Can also contact Chuck Burke, Pollution Prevention Specialist, Arizona Department of Environmental Quality (602-363-8348). 18½ minutes (at YAC).

**Title:** *How Chemicals Move through Soil* (with affiliated guide)

**Source:** Arizona Cooperative Extension

**Address:** The University of Arizona, 104 Forbes, P.O. Box 210036, Tucson, AZ 85721-0036

**Phone #:** 520-621-7177

**Cost:** \$25.00

**Audience:** adults, college students, general audiences

**Abstract:** This video covers soil composition, sources, characteristics, and transformations of chemicals, and chemical transportation through soil processes. Uses good visuals to aid understanding. Order through Arizona Cooperative Extension at <http://ag.arizona.edu/pubs/quarterly.html>. (1998) 27 minutes.

**Title:** *How to Use the Groundwater Flow Demonstration Model*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8<sup>th</sup> Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** for loan only

**Audience:** educators

**Abstract:** This video shows educators how to set-up, use, and take down a groundwater flow demonstration model. (at YAC).

**Title:** *How Water Moves through Soil* (with affiliated guide)

**Source:** Arizona Cooperative Extension

**Address:** The University of Arizona, 104 Forbes, P.O. Box 210036, Tucson, AZ 85721-0036

**Phone #:** 520-621-7177

**Cost:** \$25.00

**Audience:** adults, college students

**Abstract:** This video covers soil types and textures, capillary and gravitational forces, soil water holding capacity, saturated versus unsaturated soil conditions, stratified soils, and multi-directional flow using sand models and time-lapse videography. Order through Arizona Cooperative Extension at <http://ag.arizona.edu/pubs/quarterly.html>. (1994) 30 minutes (at YAC).

**Title:** *Keeping the Home & Garden Healthy the Less Toxic Way (Less-Toxic Home & Garden Video Series)*

**Source:** Central Contra Costa Sanitary District, Martinez, CA

**Address:**

**Phone #:** 925-228-9500

**Cost:**

**Audience:** adults, especially horticultural stores

**Abstract:** Second in a series of three Integrated Pest Management (IPM) videos (also *Understanding Pesticides & IPM* and *Home & Garden – Pests and Problems*) this video discusses organic fertilizers and soil amendments, watering, IPM strategies, beneficial bugs, and describes a process on how to identify leaf sample problems. Can also contact Chuck Burke, Pollution Prevention Specialist, Arizona Department of Environmental Quality (602-363-8348). 16 minutes (at YAC).

**Title:** *Non-Point Source Pollution: The solution begins with you*

**Source:** Arizona Cooperative Extension

**Address:** Yuma Agricultural Center, 6425 W. 8<sup>th</sup> Street, Yuma, AZ 85364

**Phone #:** 928-782-3836

**Cost:** free, for loan only

**Audience:** youth (grades 5-12), adults

**Abstract:** This video discusses the sources of nonpoint source pollution, the effects that various pollutants have on water quality, and a few successful remediation activities within the State of Utah. 20 minutes (at YAC).

**Title:** *Plant It Right: Restoring Our Stream*

**Source:** Washington State University Cooperative Extension

**Address:** <http://wawater.wsu.edu>

**Phone #:**

**Cost:** to purchase: \$24.00, for loan through Kitt Farrell-Poe (928-782-3836,

kittfp@ag.arizona.edu)

**Audience:** high school students, adults

**Abstract:** Streamside planting projects are vitally important in the restoration of fish and wildlife habitat. The success of these restoration projects is directly tied to proper planting techniques and subsequent maintenance. This video and accompanying planting techniques fact sheet will help students and volunteers understand the steps necessary to “Plant It Right.” 17 minutes (at YAC).

**Title:** *Ride through the Storm Drain, A*

**Source:** Salt Lake County Stormwater Coalition

**Address:** Salt Lake City, Utah

**Phone #:** 800-468-2711

**Web Site:** www.stormwatercoalition.org

**Cost:**

**Audience:** youth

**Abstract:** Using an animated water droplet, this video examines the difference between sewers and storm drains and discusses steps that people can take to keep urban runoff water clean. (1999) 7½ minutes (at YAC).

**Title:** *Surface Water Unit*

**Source:** Water Environment Federation

**Address:** Publications Order Dept., 601 Wythe St., Alexandria, VA 22314-1994

**Phone #:** 800-666-0206

**Cost:** \$49.00

**Audience:** youth, grades 5-9

**Abstract:** This video presents a thorough overview of surface water. Dino Sorrus, WEF’s animated water quality spokes-dinosaur, introduces live-action students reporting on the state of today’s surface water quality. The video also provides ideas on how to reduce or prevent water pollution. Package includes a video, teacher’s guide, and 20 student workbooks. 8 min (at YAC).

**Title:** *Understanding Pesticides & IPM (Less-Toxic Home & Garden Video Series)*

**Source:** Central Contra Costa Sanitary District, Martinez, CA

**Address:**

**Phone #:** 925-228-9500

**Cost:**

**Audience:** adults, especially horticultural stores

**Abstract:** First in a series of three Integrated Pest Management (IPM) videos (also *Keeping the Home and Garden Healthy the Less Toxic Way* and *Home & Garden – Pests and Problems*) this video covers the history and basics of IPM. Good use of graphics. Can also contact Chuck Burke, Pollution Prevention Specialist, Arizona Department of Environmental Quality (602-363-8348). 13½ minutes (at YAC).

**Title:** *Wastewater Treatment H2O TV*

**Source:** Water Environment Federation

**Address:** Publications Order Dept., 601 Wythe St., Alexandria, VA 22314-1994

**Phone #:** 800-666-0206

**Cost:** \$49.00



**Audience:** youth, grades 5-9

**Abstract:** Starting with a “music video” style introduction, Dino Sorrus (WEF’s animated water quality spokes-dinosaur), presents a complete examination of the wastewater treatment process. Students will be entertained and challenged into understanding water quality issues. The package includes a video, teacher’s guide, and 20 student workbooks. (at YAC).

**Title:** *Water: A Never Ending Story*

**Source:** Utah Division of Water Resources, Dept. of Natural Resources

**Address:** 1636 West North Temple, Suite 310, Salt Lake City, UT 84116-3156

**Phone #:** 801-538-7299

**Cost:** \$10.00

**Audience:** youth, grades 5-9

**Abstract:** This 1995 video presents a brief introduction to specific segments of the hydrologic cycle as seen through the West: evaporation, precipitation, water storage, water treatment, distribution systems, water use, sewer systems, and waste treatment. A better understanding of the hydrologic cycle will cultivate a water conservation attitude and assist in managing this precious resource. A 54- page curriculum accompanies the video with specific activities designed for use with each of the eight segments of the video. 20 minutes (at YAC).

**Title:** *Water From the Ground Up*

**Source:** Arizona Water Resources Research Center

**Address:** 350 N. Campbell, Tucson, AZ 85719-5633

**Phone #:** 520-792-9591

**Cost:**

**Audience:** upper elementary, middle school youth

**Abstract:** A groundwater flow model is used to discuss various groundwater concepts including infiltration, percolation, over-drafting, base flow, and chemicals moving through underground systems. (1997) 10 minutes (at YAC).

**Title:** *Watershed Best Management Practices*

**Source:** Arizona Cooperative Extension

**Address:** Fisheries & Wildlife Dept., Utah State University, Logan, UT 84322-5210

**Phone #:** 435-797-3975

**Cost:** \$14.50

**Audience:** adults

**Abstract:** In this 1996 video, Utah Extension resource specialists identify activities that occur in watersheds which may contribute to non-point source pollution of water systems and the best management practices which can be implemented to reduce the impact of non-point source pollution on water systems. 23 minutes (at YAC).

**Title:** *We All Live Downstream*

**Source:** Oregon State University Extension Service

**Address:** Publications Orders, Agricultural Communications, Oregon State University, Administrative Services Building A422, Corvallis, OR 97331-2119

**Phone #:** 503-737-2513

**Cost:** \$30.00

**Audience:** youth (grades 9-12) and adults

**Abstract:** This video gives an introduction to nonpoint source pollution. It gives an example of an American river under stress (the Tualatin River in Oregon) and the positive steps taken to improve the river's water quality. It gives a good overview of urban/stormwater runoff and includes a segment on agricultural nonpoint source pollution. 23½ minutes (at YAC).