

## A. General Education

\*Specifically for teachers or volunteer youth leaders

**1. Arsenic in Illinois Groundwater** (DNR, DPH, EPA, 2001) Fact sheet about arsenic and its effects on groundwater.

\***2. Benzene** (Sticker) This sticker is placed on gasoline containers to warn people that spills can contaminate groundwater.

**3. Bottled Water** (U of I Extension) Ten page bulletin explores the issues surrounding sources and uses of bottled water.

**4. Community Water: How Local Communities Can Protect Their Groundwater** (U of I Extension, 1994, 16 pp.) An overview of community groundwater protection efforts in Illinois. Short version of E.2. below.

\***5. For Kids Only** (DNR) A one page reproducible handout of true/false questions, a brief discussion of groundwater protection laws, and a graphic depicting water pollution and protection activities.

**6. Gasoline** (IDPH, 1997) This fact sheet gives a detailed explanation of the chemical properties of gasoline and answers questions about exposure to gasoline.

\***7. Groundwater** (USGS, 17 pp.) An introduction to groundwater, its quality, and its appraisal.

\***8. Groundwater-Illinois' Buried Treasure: Education Activity Guide** (EEAI & DNR, Revised 1993, 150+ pages) Educational kit for teachers that includes 18 activities and supporting materials.

**9. Groundwater Quality Protection: Community Water Supply Planning** (IEPA) This brochure describes community well site surveys, maximum setback zones, and groundwater protection needs assessments.

**10. Ground Water and Surface Water: A Single Resource** (USGS-Circular 1139, 1998, 79 pp.) A book that provides an in-depth look at both groundwater and surface water and documents their interaction.

**11. A Guide to Services Offered by the ISWS Groundwater Information Office** (DNR, 4 pp., 1993) Services include: well records, hydrologic reports, well protection tests, water-level monitoring, water quality & quantity. Also lists the staff and their duties.

\***12. H2O Below: An Activity Guide for Groundwater Study** (DNR, 238+ pp.) Educational curriculum containing activities developed as part of the Illinois Middle School Groundwater Project.

**13. HomeACRE** (IDOA, 1998, 116 pp.) This voluntary homestead assessment system helps homeowners and

renters evaluate the health and safety of their home environments including water quality.

**14. Illinois Groundwater Classification** (DNR) One page summary of Illinois groundwater classes, their criteria and their numeric standards, as adopted by the Pollution Control Board in December 1991.

**15. The Illinois Groundwater Protection Act, A safeguard for Illinois' Water Supply** (DNR) Brochure. A general overview of the IGPA, also lists sources for further information.

**16. Karst Landscapes of Illinois** (ISGS Geobit 7, 1998, 2 pp.) Fact sheet on karst areas, sinkholes, and contamination susceptibility in these areas.

**17. Limiting Liability for Groundwater Contamination** (Freshwater Foundation) Suggestions for county, city and business personnel to protect themselves from the legal ramifications associated with groundwater contamination.

**18. Mahomet Aquifer Consortium** (MAC 2000) Well illustrated color pamphlet about the Mahomet, and the need to research and protect this central Illinois aquifer.

**19. Maximum Setback Zones** (IEPA) This brochure explains the procedures for establishing a maximum setback zone for a community well.

**20. Pollution Prevention: A Guide to Program Implementation** (WMRC-DNR) Offers businesses a detailed step by step plan for implementing pollution prevention programs.

**21. Proceedings of Groundwater Protection Field Days Conducted by Regional Groundwater Committees** (DNR) Manuals containing materials presented at the field days. There are four Regional Groundwater Protection Committees and field day manuals are available for each.

**22. Radium in Groundwater from Public Water Supplies in Northern Illinois** (USGS FS 137-99, 1999, 2 pp.) A fact sheet about radium, health risks and treatment technologies.

**23. Safe Drinking Water: Microbial Standards Help Ensure Water Quality for Consumers** (U of I Extension, 6 pp., 1995) Explores water quality issues in relation to microorganisms.

**24. Safe Drinking Water: Testing and Treating Home Drinking Water** (U of I Extension, 20 pp.) Provides information about sampling, testing, and treating your drinking water.

**25. State of Illinois Water Use Act of 1983** (amended 1987) (IDOA) This pamphlet explains this groundwater quantity law and review procedures for production wells of 70 gpm and greater.

\***26. Teacher Packet.** A selection of about 30 materials useful

to teachers, including A.8. above.

## B. Maintaining Private Groundwater Supplies

**1. Abandoned Wells: Hazards to Health and Safety** (IDPH, 1989) Discusses the hazards of abandoned wells and summarizes well-sealing requirements.

**2. Commonly Found Substances in Drinking Water and Available Treatment** (IDPH, 1991) Discusses hardness, sulfates, iron, chlorides, pH, total dissolved solids and hydrogen sulfide, as well as methods of treatment.

**3. Drilled Wells and Bored Wells** (IDPH, 1993, 1995) Bulletins describing the proper location, construction, and disinfection of drilled and bored wells.

**4. Drinking Water Facts: Well Sampling for Coliform and Nitrate** (IDPH, Dec. 1995) Fact sheet for well owners about sampling their wells.

**5. Gardening in Your Wellhead Protection Area: Keeping Your Drinking Water Clean** (DNR, 1998) Pamphlet. Tips for gardening in a wellhead protection area.

**6. Ground Water and the Rural Homeowner** (USGS, 1994) 36 pp.) Provides a comprehensive guide about wells and groundwater for rural homeowners.

**7. HomeACRE** (IDOA, 1998, 116 pp.) This voluntary homestead assessment system helps homeowners and renters evaluate the health and safety of their home environments including water quality.

**8. Planning Your Well: Guidelines for Safe, Dependable Drinking Water** (U of I Extension, 1988) Answers most commonly asked questions about installing a private water well.

**9. A Survey of the Quality of Water Drawn from Domestic Wells in Nine Midwest States** (CDC, 1998, 25 pp.) A study of well samples from nine states tested for atrazine, coliform, bacteria and nitrates.

**10. There's More Than One Way to Save Water** (DNR, 4 pp., 1992) Lists methods of conserving water and savings possible.

**11. Water Well Disinfection Procedures** (IAGP, 1997, 20 pp.) A study examining procedures for properly disinfecting private wells.

**12. Your Water Well System: An Owners Guide** (IAGP) Pamphlet contains information about maintaining and testing private water wells.

## C. Groundwater in Agricultural Areas

**1. 50 Ways Farmers Can Protect Their Groundwater** (Available from U of I Extension offices for \$5) This 150 page book provides methods to protect rural water supplies from chemicals used on the farm

**2. Illinois Farm Asyst** (IDOA-brochure and folders of materials). Initiated in 1996, this voluntary farmstead assessment system helps operators and rural residents protect groundwater. Also available at SWCD and U of I Extension offices.

## D. Sealing Abandoned Wells

**1. Abandoned Wells** (IDPH, Revised 2001) Leaflet. Excerpts requirements from the Illinois Water Well Construction Code [Section 920.120]

**2. Drinking Water Facts: Abandoned Wells** (IDPH, Dec. 1995) Fact sheet about abandoned wells and the dangers that they present.

**3. Illinois Water Well Sealing Coalition** (1999) Brochure. General information about the IWWSC and its member associations.

**4. Sealing an Abandoned Well** (U of I Extension, 2003, 4 pp.) Fact sheet about the sealing procedures for abandoned wells.

**5. Sealing Abandoned Wells: A Campaign Primer** (Prairie Hills RC&D, DNR, IDPH, 52 pp., 1992) Shows the suggested steps to complete a successful well sealing demonstration or campaign and provides related information.

**6. Ten Good Reasons to Seal Abandoned Wells** (DNR) This "business card" size list fits easily into a pocket or billfold.

## E. Technical

**1. Developing a Community Groundwater Protection Education Program** (DNR, 4 pp.) Guide for developing a community groundwater protection education program.

**2. Groundwater Protection by Local Government** (UI, APA, DNR, IEPA, 1994, 148 pp.) Detailed manual offers local government an in-depth view of groundwater protection principles, needs, authorities and methods. Includes model ordinances and community operational procedures.

**3. Guidance Document for Groundwater Protection Needs Assessment** (IEPA, 1995, 100 pp.) For use by counties and municipalities using a community water supply to determine groundwater protection methods beyond wellhead setback zones.

**4. The Illinois Groundwater Protection Act** (LRB, DNR, Table of contents and 48 pp.) P.A. 85-863 as enacted on September 24, 1987.

**5. Illinois Groundwater Protection Program: Biennial Comprehensive Status and Self-Assessment Report** (ICCG, 2002, 80 pp.) Status report on the groundwater protection program in Illinois.

**6. Maximum Setback Zone Workbook** (IEPA, July 1990) Contains information on the need for maximum setback zones, how to apply for one, and how to determine the zones. A related pamphlet is also available.

**7. Pollution Prevention: Illinois Industry Success Stories** (WMRC, 1995, 33 pp.) Contains case stories of businesses that have reduced their generation of waste.

**8. A Primer Regarding Certain Provisions of the Illinois Groundwater Protection Act** (IEPA, 1988, 48 pp.) Contains background and summary of the Illinois Groundwater Protection Act with emphasis on community water supplies.

**9. Protecting Local Ground-Water Supplies Through Wellhead Protection** (USEPA, May 1991, 18 pp.) Helpful booklet for citizens interested in protecting groundwater.

**10. The Shining Stars of Groundwater Protection** (DNR, 1999-2002, 6 pp.) Series of articles on local government successes in groundwater protection.

**11. Sustainability of Groundwater Resources** (USGS-Circular 1186, 1999, 79 pp.) Illustrates hydrologic, geologic, and ecological concepts needed to assure sustained use of groundwater resources. Includes many case stories including one on the overpumpage of the Cambrian-Ordovician aquifer in Northeastern Illinois.

**12. Tritium: Use of Tritium in Assessing Aquifer Vulnerability** (IEPA, 1997) Fact sheet about the use of tritium for estimating aquifer vulnerability for contamination.

**13. Wellhead Protection for New Community Water Supply Wells** (IEPA) Pamphlet. Steps to follow for communities with new water supply wells.

## F. Displays and Posters

**1. Abandoned Wells and Setbacks** (DNR) Four posters that encourage the sealing of abandoned wells and establishing setbacks for private wells.

**2. Chemical Hazards in the Home and Chemical Hazards in the Garage and Workshop** (DNR-HMRC) Posters list hazardous products, their disposal, and alternative materials.

**\*3. Groundwater Flow Models** (DNR) Plexiglass "ant farm"

models used to demonstrate groundwater flow and concepts. Many are available for loan throughout Illinois. Call for details.

**\*4. Groundwater and Land Use in the Water Cycle** (WGNHS). The 24" x 36" color poster graphically displays water movement through various land uses and geologic formations.

**\*5. The Hydrologic Cycle** (DNR-ISWS) This 11" x 17" black-and-white poster depicts the hydrologic cycle in a midwest setting with an emphasis on groundwater.

**6. Karst Land in Illinois** (DNR-ISGS) Poster. Contains diagrams of karst formations, sinkholes and the movement of groundwater through the karst.

**7. Library Display on Illinois Groundwater** (DNR) Three-panel display shows groundwater resources, threats, and needed actions. Cannot be sent by mail or UPS. Call for availability.

**8. Sealing Abandoned Wells: Display** (DNR) A folding table top display. Shows step by step procedures for well sealing methods. This display can be sent by UPS.

**\*9 Water Poster Series** (USGS and Natl. Sci. Teachers Assoc.) Large two sided posters fold into 8-1/2" x 11" panels. Back panels can easily be photocopied.

## G. Audio-Visual

**1. Abandoned Wells** (DNR, 2000; 68-35mm slides) For professional associations to educate their members on recognizing and sealing both urban and rural abandoned wells.

**2. Groundwater Model Demonstration** (1993, IL Central Groundwater Protection Committee, 32 minutes) Produced by East Peoria High School. This video shows methods of using groundwater flow models for classrooms, public events and student demonstrations.

**3. Groundwater: Protecting Illinois' Invaluable Hidden Resource** (DNR, 1989) This 20-minute slide set informs viewers of groundwater principles, quantity and quality concerns, provisions of the Illinois Water Use Act and IGPA.

**4. Groundwater Protection: Designing a Field Demonstration** (DNR, 1992) A 14-minute video on the resources available and the resources needed for running a groundwater protection field day.

**5. Groundwater Protection: Sealing Abandoned Wells** (DNR, 1991) This 7-minute video discusses reasons for and methods of sealing abandoned wells.

**\*6. Illinois Groundwater: Our Invisible Resource** (DNR, 1989) This 22-1/2 minute broadcast-quality videotape describes

Illinois' water resources. Teachers guide available.

**7. The Illinois Groundwater Protection Act: An overhead slide set** (DNR) Provides a series of concept graphics on groundwater, threats to it, and various provisions of the IGPA. Call for information.

**8. The Power to Protect** (Small Flows Clearinghouse, 32 minutes, 1991) Shows New England planners, engineers, water officials and citizens working together to protect groundwater. Included is a practical workbook featuring 6 steps to get started in your community.

**9. The Price of Bounty** (U of I Extension, 1991) This 70-minute video raises health, water quality and agricultural chemical issues. The Village of Chandlerville's problems with agricultural chemicals in its well water are featured.

**10. Protecting Our Water** (Central IL Groundwater Protection Committee, 2002, 10 min.) VHS video. Discusses groundwater, its importance, and means to protect it.

**11. Tools for Drinking Water Protection** (LWV, 90 minutes) Video contains a strategy to protect the quality of drinking water sources. The strategy has four elements: land use planning, public education, monitoring, and contingency planning.

## H. Speakers Bureau

DNR maintains a speakers bureau to help identify speakers for various groundwater presentations.

## I. Information

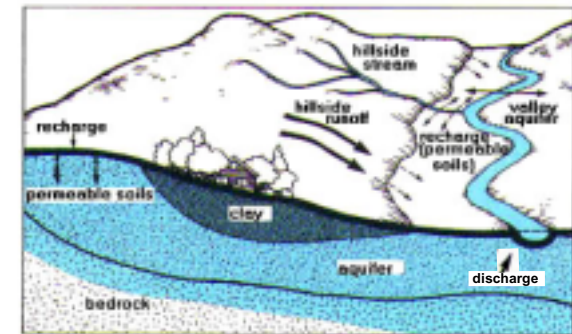
Many of these materials are available in your local U of I Extension, Soil and Water Conservation District (SWCD), or Public Health offices. You may wish to check with one of these offices, depending on the nature of your concern. All of these materials are available free or for free loan from DNR Groundwater, One Natural Resources Way, Springfield, IL 62702-1781, 217/785-8577 or Fax 217/524-4177. Hearing Impaired customers may call the Illinois Relay Center at 1-800-526-0844.

Rod Blagojevich, Governor  
Joel Brunsvold, Director

Printed by Authority of the State of Illinois  
on recycled and recyclable paper



# Groundwater Protection Education Materials



## 2004



Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702-1271