### Ohio Department of Natural Resources



# Division of Soil and Water Resources Fact Sheet

Fact Sheet 92–10

## **Ground Water Resource Mapping in Ohio**

arly in the 1970's, the Division of Water, now the Division of Soil and Water Resources, realized the need to distribute basic ground water availability information to the general public in an easy to use, semi-technical format. To meet this need, the Division began producing a series of maps which describe Ohio's ground water resources on a county by county basis. Generally referred to as "Ground Water Resource Maps", these maps are intended to aid homeowners, industries, municipalities, and regional water systems in developing reliable ground water supplies.

#### Easy to Read Map Design

Ground water resources maps show the expected yield to a drilled well at any location in a county. All maps use a consistent color coding system to represent well yields. For example, properly constructed wells drilled in areas colored blue on any map can be expected to yield 100 to 500 gallons per minute. Areas colored yellow would yield 25 to 100 gallons per minute. In all, there are six colors used to identify well yield categories ranging from purple (greater than 500 gpm) to orange (less than 3 gpm).

#### **Information to Plan Your Water Supply**

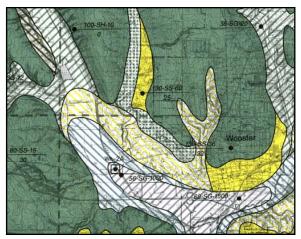
In addition to yield information, Ground Water Resources Maps show several other types of data which can be used to aid in the development of a water supply. All maps show selected well log data for locations throughout the county. These data include total well depth, well yield, aquifer type, and depth to bedrock if encountered. Many of the maps also include data for some of the most common, naturally occurring, inorganic chemicals such as iron and total hardness. Each map includes a brief written description of the ground water geology within the county. These descriptions usually contain information on the type of aquifer or aquifers present in an area (e.g. sandstone, limestone, sand and gravel, etc.), typical well depths, and any known unusual conditions a well driller may encounter when drilling.

#### **Producing a Ground Water Resources Map**

Ground water resources maps are printed on a United States Geological Survey topographic map base which shows significant natural and man-made features such as roads, streams and rivers, lakes, and buildings. County political subdivisions are also illustrated on the base map including township borders, and city and village limits. Ground Water Resource Maps are produced at a scale of 1:62,500 or approximately 1 inch = 1 mile.

Ground water resources maps are constructed using well log and drilling reports on file at the Division, bedrock and glacial information published by the Division of Geological Survey, and unpublished geologic and hydrogeologic data including consultants reports, test borings, sieve analyses, and pumping tests.

#### **Portion of Wayne County Ground Water Resources Map**



Example of a Ground Water Resources Map using colors and patterns to represent the different formations and well yields. Dot and line patterns represent unconsolidated material (sand and gravel) and solid color areas represent bedrock. Colors represent the expected yield to wells in the area in gallons per minute.

**Production Status of the Ground Water Resources Mapping Program of Ohio** Ashtabula 1978, Lucas Williams Fulton 1994R 1990 1991 1986 Geauga 1996 Ottawa Wood 1986 1978,90 Trumbull Henry Cuyahoga 1986 Sandusky Defiance 1979. Lorain 1979 1982 1982 1980 1986 1992 Portage R1996 1980, Huron 1986 1994 Paulding Summit Medina 1979 Seneca 1978 1979, 1986 Putnam Hancock 1982 1994R Mahoning Ashland 1991 1979 1981 Van Wert Stark Wayne Wyandot Crawford Richland 1979 Allen Columbiana 1982 1981 1980, 1983 1979 1979,1988, 2000 1978, 1981 Hardin 2000 1993 Carroll Mercer 1983 Marion Auglaize Holmes Morrow 1991 Tuscarawas 1980 1983 1982 1979 Jefferson Knox 1989 1981 Logan Union Shelby 1990 Coshocton Harrison 1983 Delaware 1980 1983 Darke 1979, 1994R 1980 1988 1987 Licking Champaign Guernsey 1993 Miami 1982,1992 Belmont 1985 Muskingum Franklin Madison 1991 1984 1991 1958, Clark 1993R. 1992 2000 1982 1994 Fairfield Perry Preble Montgomery Monroe 1981, 1992 Noble 1986, Greene Pickaway 1986 1996 Morgan 1991 1991 1980, 1991 Fayette 1991 1984 Hocking 1990 Washington Warren Butler Clinton 1991 1984 Ross 1986, Athens 1986, 1994 1993 2000 1985 1980 Vinton Highland 1985 Hamilton Clermont 1986, Meigs 1991 Pike 2000 Jackson/ 1985 1986 1989 1985 Gallia Brown Adams Scioto 1989 1985 1989 1989 **Published** Two Counties on Lawrence L One Map 1985 1986R Printing Date(s) (R Indicates Revisions)

For more information, ordering or to download available maps, please contact:

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Website: http://www.ohiodnr.gov/soilandwater/

Cost: \$8.00 (Plus \$2.50 postage and handling)

