

OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Mineral Resources Management
Industrial Minerals

References for Ground Water Data or Model Report Submittals & Sources of Information for Required Data

References & Citations

A review of previously submitted ground water data and model reports was conducted, and a list of commonly used references was compiled to serve as a starting place to find information required by 1501:14-5-01. This list is not complete. It is suggested to contact ONDR Divisions of Mineral Resources Management, Water Resources, and Geologic Survey and perform a literature search to obtain required information.

Hydrogeology & Modeling

Anderson, M.P. and Woessner, W.W., 1992, Applied Groundwater Modeling, Simulation of Flow and Advective Transport: San Diego, Academic Press, 381 p.

Bear, J., and Verruijt, A., 1987, Modeling Groundwater Flow and Pollution: Amsterdam, D. Reidel Publishing, 414 p.

Bouwer, H., 1978, Groundwater Hydrology: New York, McGraw-Hill Book, 480 p.

Domenico, P.A., and Schwartz, F.W., 1990, Physical and Chemical Hydrogeology: Hoboken, New Jersey, John Wiley & Sons, 506 p.

Driscoll, F.G., 1996, Groundwater and Wells. St. Paul, Minnesota, Johnson Division, Second Edition, 1089 p.

Fetter, C. W., 1994, Applied Hydrogeology: Upper Saddle River, New Jersey, Prentice-Hall, 691 p.

Franke, O.L., Reilly, T.E., and Gennett, G.D., 1987, Definition of Boundary and Initial Conditions in the Analysis of Saturated Ground-Water Flow Systems – An Introduction: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter B5, 15 p.

Freeze, R.A. and Cherry, J. A., 1979, Groundwater: Englewood Cliffs, New Jersey, Prentice Hall, 604 p.

Harbaugh, A.W., 1990, A computer program for calculating subregional water budgets using results from the U.S. Geological Survey Modular Three-Dimensional Finite-Difference Ground Water Flow Model: U.S. Geological Survey Open-File Report 90-392, 46 p.

Heath, R.C., 1983, Basic ground-water hydrology: U.S. Geological Survey Water Supply Paper 2220, 86 p.

Hill, M.C., 1998, Methods and guidelines for effective model calibration: U.S. Geological Survey Water-Resources Investigations Report 98-4005, 90 p.

Hill, M.C. and Tiedeman, C.R., 2007, Effective Groundwater Model Calibration, With Analysis of Data Sensitivities, Predictions and Uncertainty: Hoboken, New Jersey, John Wiley and Sons, 455 p.

Larkin, R.G., and Sharp, Jr., J.M., 1992, On the relationship between river-basin geomorphology, aquifer hydraulics, and groundwater flow direction in alluvial aquifers: Geological Society of America Bulletin, v. 104, p. 1608-1620.

McDonald, M.G. and Harbaugh, A.W., 1988, A Modular Three-Dimension Finite Difference Ground-Water Flow Model: Techniques of Water Resources Investigations of the USGS, Chapter A1, Book 6.

Recharge

Dumouchelle, D.H. and Schiefer, M.C., 2002, Use of Streamflow Characteristics to Estimate Ground-Water Recharge Rates in Ohio. Ohio Department of Natural Resources, Bulletin 46, 45 p.

Harstine, L.J., 1991, Hydrologic Atlas for Ohio: Ohio Department of Natural Resources, Division of Water, Water Inventory Report 28, 10 p.

Pettyjohn, W. A. and Henning, R., 1979, Preliminary Estimate of Ground-water Recharge Rates Related to Stream Flow and Water Quality in Ohio: Ohio State University, Water Resources Center Report No.552, 240 p.

Lithology & Hydraulic Conductivity

Eberts, S.M. and George, L.L., 2000, Regional Ground-Water Flow and Geochemistry in the Midwestern Basins and Arches in the Midwestern Basins and Arches Aquifer System in Parts of Indiana, Ohio, Michigan, and Illinois: U.S. Geological Survey Professional Paper 1423-C, 103 p.

Hatfield, C.B., 1988, Middle Devonian Rocks and Shales of North-Central Ohio: Ohio Journal of Science, v. 88, no. 1, p. 18-22.

Horvath, A.L. and Sparling, D.L., 1967, Silurian geology of western Ohio, *in* Guidebook to the 42nd Annual Field Conference Geology Section: Dayton, Ohio Academy of Science, 14 p.

Janssens, A., 1970, Middle Devonian Formations in the Subsurface of Northwestern Ohio: Ohio Division of Geological Survey Report of Investigation No. 78, 22 p.

Janssens, A. 1977, Silurian Rocks in the Subsurface of Northwestern Ohio: Ohio Division of Geological Survey Report of Investigation No. 100, 96 p.

Johnson, A.I., 1967, Specific Yield – Compilation of Specific Yields for Various Materials: U.S. Geological Survey Water Supply Paper 1662-D, 74 p.

Norris, S.E. and Fidler, R.E., 1973, Availability of Water from Limestone and Dolomite Aquifers in Southwest Ohio and the Relation of Water Quality to the Regional Flow System: U.S. Geological Survey, Water Resources Investigations 17-73, 42 p.

Ohio Department of Natural Resources, 1970, Ground Water for Planning in Northwest Ohio– A Study of the Carbonate Rock Aquifer: Division of Water, Ohio Water Inventory Report 22, 63 p.

Raymondi, R.R., 1997, Aquifer Test in Carbonate Rocks Overlain by Glacial Sediments in North-Central Ohio: Ohio Journal of Science, v. 97, no. 1, p. 24-29.

Rowland, M.R. and Kunkle, G.R., 1970, Cones of Influence Developed in the Silurian-Devonian Aquifer, Maumee River Basin, Ohio: Ground Water v. 8, no. 3, p 37-43.

Sheets, R.A., 2007, Hydrogeologic Setting and Ground-Water Flow Simulations of the Great Miami River Basin Regional Study Area, Ohio: U.S. Geological Survey Professional Paper 1737-A, 23 p.

Citing References

Use a consistent format to cite references in text and list in the references section. For examples of citation styles used in geological publications, please refer to the following documents:

USGS: Preparing References for Survey Reports

<http://pubs.usgs.gov/sta7/sta7refs.doc.pdf>

GSA Publications: References Cited (Scroll to the bottom of the page)

<http://www.geosociety.org/pubs/geoguid5.htm>

Sources of Information

Data will be included with the submission of a model report or of data as required by the Ohio Administrative Code 1501: 14-5-01 (A) and (B). Sources for required information are as follows:

Water Well Log Reports

The ODNR, Division of Water Resources (DWR) maintains a water well log report database that is accessible through their website. Either query the database or contact the Division to request that their staff perform the query.

Phone: (614) 265- 6610

Water Well Log Report Database online:

<http://www.dnr.state.oh.us/water/maptechs/wellogs/appNEW/>

Water Withdrawal Facilities Registration Program

Facilities that withdrawal greater than 100,000 gallons per day (GPD) in Ohio are required to register with DWR and must report their withdrawal(s) annually under Section 1521.16 of Ohio Revised Code. Registration Program information regarding the locations and withdrawal amounts can be obtained by contacting DWR.

Phone: (614) 265-6724

Other Hydrogeologic Information

DWR may have test borings reports that are useful hydrologic information. Ground-water resources maps, potentiometric surface maps, and ground-water pollution potential maps are available through the DWR website. Consult with DWR staff geologists about obtaining data and additional references on Ohio hydrogeology.

Phone: (614) 265- 6610

<http://www.dnr.state.oh.us/tabid/3783/Default.aspx> (See left column for maps)

ODNR, Division of Geologic Survey (Ohio Geologic Survey) publishes maps that depict bedrock geology, drift thickness, bedrock and surficial topography, and structure contours of geologic formations. The maps are available printed or as GIS shapefiles. The Ohio Geologic Survey also has geologic reports and measured stratigraphic sections from many areas of the state. Please consult with their staff geologists for other possible sources of information.

Phone: (614) 265-6576

Website: <http://ohiodnr.com/tabid/7105/Default.aspx>