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EDUCATION

M.S., Contaminant Hydrology, 1993
Oregon Graduate Institute, Beaverton, OR

B.A., Watershed Science, 1983
Colorado State University, Fort Collins, CO

PROFESSIONAL INTERESTS

Quantitative hydrologic analysis for optimal management of water resources; numerical modeling techniques in water-resources evaluation; Groundwater flow and subsurface contaminant transport; groundwater interactions with surface water; source water evaluation; contaminant loadings to coastal waters.

EXPERIENCE

U.S. Geological Survey, New Jersey Water Science Center, West Trenton, NJ

Groundwater Specialist , May 1996-Present

Serve as groundwater specialist. Provide technical oversight to groundwater projects in the Science Center. Oversee Center groundwater level monitoring network. Provide oversight of QA/QC process for entry of GW data into the Science Center databases. Recently have been working on improving the Center water use database to provide data needed for project work and groundwater models.

Conducted groundwater investigations to address water-supply and contamination related issues in New Jersey. Have created and calibrated flow models and have overseen project staff in assembling, calibrating, and applying flow models. Conducting investigation of a Coastal Plain aquifer system that includes both confined and unconfined aquifers. The model is being developed to evaluate potential seasonal conjunctive use of the unconfined and confined aquifers such that streamflow depletion problems are avoided in the unconfined aquifer and continued water-level declines in the confined aquifer are minimized. Developed complex flow model for a USEPA chromium contamination Superfund site.

Acting Regional Groundwater Specialist, May 2006-July 2006

Performed duties of Regional Groundwater Specialist including: Proposal review, participation in WSC technical reviews, review of several aquifer test packets, attended program review presentations, and reviewed a modeling report for policy considerations.

Hydrologist/Project Chief, Montana Water Science Center, September 1993-April 1996

Worked as project chief of an investigation of ground water flow and movement in a valley-fill aquifer. One of the purposes of the project was to evaluate various age-dating methods and their use in numerical flow models. Collected water-quality data and CFC and tritium/helium data for age

dating. Developed a cross-section flow model of the basin from recharge area to discharge area. Calibrated model to match the age dates collected.

Worked on Montana District web page development team. The team identified real-time streamflow data as a need that could be met using the internet. The District was answering up to 100 calls per day to get stream conditions for recreational use. I worked together with Dave Briar to develop a real-time streamflow system for Montana. We then received national funding to expand the system to create the RT_WWW system that was deployed nationally and was the first real-time streamflow system used by the USGS. Received USGS Honor awards for Superior service for this work.

Hydrologist, Graduate School Training Program, September 1992- August 1993

Attended classes for Masters Degree in Contaminant Hydrology at Oregon Graduate Institute in Beaverton Oregon as part of the USGS Graduate School Training program.

Hydrologist/Project Chief, New Jersey Water Science Center, July 1990 - August 1992

Project chief of a modeling project to simulate ground-water flow and saltwater interface movement in the confined aquifers in the New Jersey Coastal Plain. Used SHARP model to simulate fresh water-salt water interface movement. Model was based on the existing NJ RASA model. Worked with project staff to incorporate hydrogeologic framework in offshore areas for use in SHARP. Incorporated affects of historic sea level changes on the saltwater interface to determine the starting location for current simulations. Modified the SHARP code to incorporate sea level fluctuations.

Hydrologist, New Jersey Water Science Center, January 1985 - June 1990

Developed ground-water flow model of major confined aquifers. Analyzed base flow and recharge data for area for use in model. Used GIS to develop model input data sets. Helped teach class at the USGS National Training Center on using GIS in modeling of ground-water flow. Worked on water-quality sampling network design and well inventory. Reviewed aquifer test data. Analyzed aquifer test data using radial flow numerical model. Helped conduct project aquifer test. Organized project synoptic water-level data collection effort.

PROFESSIONAL AFFILIATIONS

- American Water Resources Association
- Association of Ground Water Scientists and Engineers

PUBLICATIONS

Lacombe, P.J., Carleton, G.B., Pope, D.A., and Rice, D.E., 2009, Future Water-Supply Scenarios, Cape May County, New Jersey, 2003-2050: Scientific Investigations Report , SIR 2009-5187, 158 p.

Jones, W.D., Navoy, A.S., and Pope, D.A., 2007, Summary of the Ground-Water-Level Hydrologic Conditions in New Jersey 2006: Fact Sheet - U. S. Geological Survey, FS 2007-3049, 6 p.

Pope, D.A., 2006, Simulation of proposed increases in ground-water withdrawals on the Atlantic City 800-foot sand, New Jersey coastal plain: Online Only , 2006-5114, 17 p.

Pope, D.A., and Watt, M.K., 2005, Use of a ground-water flow model to delineate contributing areas to the Puchack well field, Pennsauken Township and vicinity, Camden County, New Jersey: Scientific Investigations Report , SIR 2004-5101, 47 p.

Pope, D.A., and Watt, M.K., 2004, Simulation of ground-water flow in the Potomac-Raritan-Magothy aquifer system, Pennsauken Township and vicinity, New Jersey: Scientific Investigations Report, SIR 2004-5025, 60 p.

Jones, W.D., Navoy, A.S., and Pope, D.A., 2003, Real-time ground-water-level monitoring in New Jersey, 2002: Fact Sheet - U. S. Geological Survey, FS 0129-02, 4 p.

Spitz, F.J., Nicholson, R.S., and Pope, D.A., 2001, A nested rediscrretization method to improve pathline resolution by eliminating weak sinks representing wells: Ground Water, v. 39, no. 5, p. 778-785.

- Pope, D.A., and Gordon, A.D., 1999, Simulation of ground-water flow and movement of the freshwater-saltwater interface in the New Jersey coastal plain: Water-Resources Investigations - U. S. Geological Survey , WRI 98-4216, 159 p.
- Pope, D.A., Clark, D.W., Dunkle Shapiro, S., and Lawlor, S.M., 1999, Hydrogeologic, geophysical, water-quality, transient-tracer and flow-model analysis of the ground-water flow system near Dillon, Montana: Water-Resources Investigations - U. S. Geological Survey , WRI 98-4250, 75 p.
- Squillace, P.J., Pope, D.A., and Price, C.V., 1995, Occurrence of the gasoline additive MTBE in shallow ground water in urban and agricultural areas: Fact Sheet - U. S. Geological Survey, FS 0114-95, 4 p.
- Pucci, A.A., Jr, and Pope, D.A., 1995, Simulated effects of development on regional groundwater/surface-water interactions in the northern coastal plain of New Jersey: Journal of Hydrology, v. 167, no. 1-4, p. 241-262.
- Pucci, A.A., Jr, Pope, D.A., and Gronberg, J.A.M., 1994, Hydrogeology, simulation of regional ground-water flow, and saltwater intrusion, Potomac-Raritan-Magothy aquifer system, northern coastal plain of New Jersey: Report - New Jersey Geological Survey, 36, 209 p.
- Pucci, A.A., Jr, Gronberg, J.A.M., and Pope, D.A., 1989, Hydraulic properties of the middle and upper aquifers of the Potomac-Raritan-Magothy aquifer system in the northern Coastal Plain of New Jersey: Report - New Jersey Geological Survey , 18, 74 p.
- Pucci, A.A., Jr, Pope, D.A., and Ivahnenko, T.I., 1989, Aquifer-test analysis of the upper aquifer of the Potomac-Raritan-Magothy aquifer system, Union Beach Borough, Monmouth County, New Jersey: Water-Resources Investigations - U. S. Geological Survey, WRI 88-4183, 27 p.
- Harriman, D.A., Pope, D.A., and Gordon, A.D., 1989, Water-quality data for the Potomac-Raritan-Magothy aquifer system in the northern coast plain of New Jersey, 1923-86: Report - New Jersey Geological Survey , 19, 94 p.