

## **Stephen J. Cauller - Hydrologist / GIS Specialist, GS-12**

### **Interests**

GIS, Geology, Ground-water resource evaluation, Ground-water modeling

### **Work Experience**

- Database development & analysis: Former member of the NWIS design and development team. Developed MS Access queries and reports to analyze Ocean County, NJ domestic well water-quality database. Provide ArcGIS support as the NJ WSC GIS Specialist.
- Water Quality: Investigator on a Toxic Substances Hydrology project that related shallow ground-water quality on Long Island, NY to land use. Summarized the Ocean County Department of Health domestic well water-quality database.
- Ground-water resource analysis: Summarized ground-water resources in Gloucester and Salem Counties, NJ including hydrogeologic framework, water-levels and chloride concentrations in major aquifers.
- Ground-water modeling: Developed a full 3-D ground-water flow model of the unconfined Kirkwood-Cohansey aquifer in the Maurice River basin, NJ. Developed a full 3-D ground-water flow model of the unconfined and confined aquifers of Ocean County, NJ.

### **Software Experience**

ArcGIS, Access, Excel, MODFLOW-2000, MFI2K, AGI-MK2K

### **Bibliography**

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- Nicholson, R.S., Hunchak-Kariouk, K., and Cauller, S.J., 2003, Review of selected references and data sets on ambient ground- and surface-water quality in the Metedeconk River, Toms River, and Kettle Creek Basins, New Jersey, 1980-2001: U.S. Geological Survey Water-Resources Investigations Report 03-4259, 37 p.
- Cauller, S.J., Carleton, G.B., and Storck, M.J., 1999, Hydrogeology of, water withdrawal from, and water levels and chloride concentrations in the major Coastal Plain aquifers of Gloucester and Salem Counties, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 98-4136, 123 p., 6 pl.

- LeaMond, C. E., Haefner, R. J., Cauller, S. J., and Stackelberg, P. E., 1992, Ground-water quality in five areas of differing land use in Nassau and Suffolk counties, Long Island, New York: U.S. Geological Survey Open-File Report 91-180, 67 p.
- Cauller, S.J., Stewart, D.W., McKallip, T.E., and Trapanese, S.M., 1992, Design and Development of a Graphical User Interface for the National Water Information System-II, in Balthrop, B.H. and Baker, E.G., eds., U.S. Geological Survey National Computer Technology meeting; program and abstracts, Norfolk, Virginia, May 17-22, 1992: U.S. Geological Survey Open-File Report 92-64, 41 p.
- Trapanese, S.M., Stewart, D.W., Cauller, S.J., and McKallip, T.E., 1991, User Interface, in Mathey, S.B., ed., System Requirements Specification for the U.S. Geological Survey's National Water Information System II: U.S. Geological Survey Open File Report 91-525, p. 17-38.
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- Cauller, S.J., 1990, Relation Between Land Use and Quality of Shallow Ground Water in Central and Eastern Long Island, New York, Ground Water, Vol.28, No. 5, p. 792-793.
- Cauller, S.J., 1989, Statistical Comparison of Temporal and Spatial Variability in Water Quality at Wells in Five Land-Use Areas of Nassau and Suffolk Counties, Long Island, New York, in Pederson, G.L., and Smith, M.M., compilers, U.S. Geological Survey Second National Symposium on Water Quality; Abstracts of the Technical Sessions, Orlando, Florida, November 12-17, 1989: U.S. Geological Survey Open File Report 89-409, p. 9.
- Eckhardt, D.A., Siwiec, S.F., and Cauller, S.J., 1989, Regional Appraisal of Ground-Water Quality in Five Different Land-Use Area, Long Island, New York, in Mallard, G. E., and Ragone, S.E., eds., 1989, U.S. Geological Survey Toxic Substances Hydrology Program: Proceedings of the Technical Meeting, Phoenix, Arizona, September 26-30, 1988, U.S. Geological Survey Water-Resources Investigations Report 88-4220, p. 397-403.