

EXPERIENCE SUMMARY

Nancy Zolidis has over nineteen years experience in hydrogeology and water resources management. She has used her background in geology, hydrology, environmental studies, and computer modeling to participate in a variety of interdisciplinary water resources investigations and projects. Nancy has taught courses in physical geology, environmental geology, hydrogeology, and computer modeling and is presently teaching “How to Build an Eco-economy” at Upper Iowa University.

EXPERTISE

Water Supply Planning & Design
Surface – Ground Water Interaction
Wetland & Lake Hydrology
Recharge Analysis & Design
Groundwater Modeling
Watershed Planning

REGISTRATION

Wisconsin Professional Geologist, PG-442
Wisconsin Professional Hydrologist, PH-140

EDUCATION

BA-Geology, 1970
Kent State University
Kent, Ohio

MS-Water Resources Management, 1982
University of Wisconsin – Madison

PhD-Land Resources, 1988
University of Wisconsin – Madison

RECENT PROFESSIONAL HISTORY

Montgomery Associates: Resource Solutions, LLC:
Consulting Hydrogeologist, 2003 to present

University of Upper Iowa
Adjunct Faculty, 2003 to present

ZGEO, LLC
Proprietor, 1997 to 2003

University of Wisconsin – Madison
Lecturer, 1999

STS Consultants, Ltd
Senior Project Hydrogeologist, 1996 to 1997

Woodward-Clyde Consultants
Senior Project Scientist, 1995 to 1996, Project
Scientist, 1992 to 1995

SELECTED PROJECT EXPERIENCE

Unit Well 29 Manganese Assessment, Madison, WI (Hydrogeologist)

- Conducted groundwater flow modeling to delineate the capture zone of UW 29 under various scenarios and to assess the likelihood that contaminated groundwater from Sycamore Landfill would impact UW 29.
- Assisted in the development of a protocol for testing and sampling a water supply test well that included vertical profiling, time series analysis and rock cuttings analysis.

Odana Hills Groundwater Recharge System Design, Madison, WI (Hydrogeologist)

- Evaluated site feasibility for infiltration by estimating water table mounding impacts and capture zones.
- Designed and implemented the water quality program to describe the quality of Odana Pond and groundwater.
- Analyzed potential infiltration impacts on the groundwater system using MODFLOW, MODPATH and analytical models.
- Evaluated potential clogging impacts on the unsaturated zone soils from infiltrating 80MGY.
- Designed the monitoring program for the proposed system operation to evaluate the quality of the pond water, treated water and groundwater.

Water Supply Options Analysis, Joshua’s Crossing, Town of Middleton, WI, (Project Manager, Hydrogeologist)

- Identified and evaluated water supply alternatives for proposed subdivision.
- Conducted hydrogeologic evaluation of potential impacts of a community water supply system on a nearby plume of contaminated groundwater beneath a landfill.
- Estimated costs of preliminary designs.
- Made recommendations for the system design and operation.
- Obtained well site approval from WDNR for a community well.



RECENT PUBLICATIONS & PRESENTATIONS

Zolidis, N.R. 2007. *Managing Stormwater runoff: using groundwater models to assess potential impacts on lake hydrology from an increase in infiltration and recharge*. Wisconsin Association of Lakes, Inc. newsletter, *The Lake Connection*, June, p. 7.

Zolidis, N.R. 2007. *Groundwater Recharge as a Goal for Stormwater Infiltration*. Paper presented at the Wisconsin Lakes Convention held 26-28 April, Green Bay, WI.

Gaffield, S.J., Zolidis, N.R., Montgomery, R.J., and J.M. Hruby. 2007. *West Campus Cogeneration Facility Compensatory Recharge System: Initial Operation Results*. Poster presented at American Water Resources Association-Wisconsin Section 31st Annual Meeting held 1-2 March, Wisconsin Dells, Wisconsin.

Zolidis, N.R., Gaffield, S.J., and N. Miller. 2007. *Getting to Know the Hydrologic Neighborhood: An Approach for Protecting Natural Areas*. Paper presented at American Water Resources Association-Wisconsin Section 31st Annual Meeting held 1-2 March, Wisconsin Dells, Wisconsin.

Zolidis, N.R. 2006. *Groundwater Pumping & Lakes: Understanding the Groundwater Connection and Beaver Lake Case Study*. Paper presented at the Wisconsin Lakes Convention held 29-22 April, Green Bay, Wisconsin.

Montgomery, R.J., Gaffield, S.J., and N.R. Zolidis. 2005. *Infiltration of Stormwater Runoff for Groundwater Recharge, Dane County, Wisconsin*. Paper presented at the 10th International Conference on Urban Drainage, Copenhagen, Denmark, 21-26 August.

Zolidis, N.R., Lefers, J., and R. J. Montgomery. 2005. *West Campus Cogeneration Facility Compensatory Recharge Design I: Integrated Modeling Approach*. Paper presented at American Water Resources Association-Wisconsin Section 29th Annual Meeting held 3-4 March, Delavan, Wisconsin.

Beaver Lake Impact Analysis, Hartland, WI (Project Manager, Hydrogeologist)

- Negotiated with the Village and their consultants to implement an enhanced monitoring plan for the proposed well testing to indicate potential impacts on lake water levels and baseflow.
- Reviewed well test results & modeling groundwater (WhAEM2000) to estimate drawdowns & to assess the capture zone of the proposed municipal well & impacts to the lake.

Hydrogeologic Impact Analysis of a Proposed Sand and Gravel Mine, Oregon, WI (Project Manager, Hydrogeologist)

- Evaluated potential impacts of the proposed sand and gravel operation on the groundwater system.
- Conducted groundwater modeling, MODFLOW and MODPATH, and presented results at public meetings indicating that water table drawdowns would be minimal and that private wells would not be adversely impacted.

Analysis of Blasting Impact on Hydrology, Marathon City, WI (Project Manager, Hydrogeologist)

- Reviewed literature and case studies to assess potential impact on City's water supply from blasting adjacent to a PCP contaminated site upgradient from municipal wells
- Developed a long-term monitoring plan for the site during blasting events which was the basis of the stipulation and settlement between the City and blasting company.
- Prepared RFP and directed third party monitoring for the first blasting event.
- Reviewed water level monitoring results and made recommendations for further testing of the sentinel well.

Whistling Straits Golf Course, Kohler Co., Town of Mosel, WI (Hydrogeologist)

- Provided technical support for evaluating Lake Michigan as the water supply for the golf course.
- Assisted in the field delineation of an ancient sand and gravel channel that would filter zebra mussels from the lake water.
- Provided technical support for delineating upland forested wetlands and wetland functional values assessment for NR103 compliance and Chapter 30/404 permitting.
- Provided design assistance for field activities for wetland mitigation.
- Evaluated surface and ground water interaction within and outside of perched wetlands by reviewing past and present drainage paths, soil and water level data, and bluff stratigraphy.

NANCY R. ZOLIDIS, PhD, PG, PH
SENIOR HYDROGEOLOGIST

Montgomery Associates 
Resource Solutions, LLC