

The logo for Barr Engineering Company, featuring the word "BARR" in a bold, sans-serif font. The letters are white and set against a dark rectangular background.

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MPCA, Metro District
Site Remediation

Governor's Council on Geographic Information
658 Cedar St.
St. Paul, MN 55155

Dear Council Members:

This letter is in support of the nomination of the Minnesota Pollution Control Agency's (MPCA's) Metropolitan Groundwater Model (Metro Model) for a Certificate of Commendation. I am a consulting hydrogeologist/engineer in the Twin Cities area with 16 years experience in environmental consulting.


The Metro Model project is a fine example of cooperation among public and private parties. The MPCA worked in cooperation with the University of Minnesota, Minnesota Geological Survey, Minnesota Department of Health, Metropolitan Council, and various consulting companies and other entities to develop a consensus on the conceptual hydrogeologic model for the area of interest. A major contribution of the Metro Model project is that it moved all of the parties involved in a direction that is essential for effective application of hydrogeologic data: incorporation of the data in a Geographic Information System (GIS). This rendered the data independent of the modeling method, and, therefore, more widely applicable.

The standardized GIS format that the Metro Model is presented in allowed me to readily develop several groundwater flow models using a different software package from that used by the Metro Model staff. The GIS-based approach provides great flexibility for end-users in applying the Metro Model resources.

The data compilation and interpretation phase of the Metro Model provides a useful, widely available starting point for new models in the Twin Cities area. A particularly useful dataset is the Quaternary sand content coverage. The Metro Model team applied an innovative method of turning geologic data from the County Well Index into GIS coverages of sand content in Quaternary deposits. These GIS coverages have been used by personnel in our company on multiple occasions in the development of groundwater models.

In summary, the cooperative approach that Metro Model staff promoted among various parties has resulted in products developed by consensus that are widely accepted in the hydrogeologic community. Moreover, the standardized, GIS-based approach provides flexibility to the readily available work products that increases their range of applicability. I hope that the Governor's Council on Geographic Information will recognize the innovative and effective application of GIS by the MPCA in the development and, ultimately, end use of the Metro Model.

Sincerely,



Amal M. Djerrari, Dr. Eng., P.E., CGWP
Senior Hydrogeologist