Intergovernmental Informational Meeting on Groundwater Modeling and Watershed Planning in Southern Waukesha and Northeastern Walworth Counties

August 22, 2007
Presentation Overview

- SEWRPC Troy Bedrock Valley Groundwater Modeling Program
- University of Wisconsin Madison Groundwater Modeling Program
- Upper Mukwonago River Basin Protection Plan
- Questions & Comments
Study Area for Groundwater Model Development in Southern Waukesha and Northern Walworth Counties

**GENERALIZED DEPTH TO BEDROCK IN THE SOUTHEASTERN WISCONSIN REGION**

- FEET BELOW LAND SURFACE
  - 0-100
  - 100-200
  - 200-300
  - 300-400
  - OVER 400

- SURFACE WATER
  - REPORTED OUTCROPS
  - SUBCONTINENTAL DIVIDE
  - GROUNDWATER MODEL STUDY AREA BOUNDARY
Study Area for Groundwater Model Development in Southern Waukesha and Northern Walworth Counties
Model Purpose

- Develop model suitable for local water system planning and related environmental analyses
  - Groundwater withdrawal
  - Surface water impacts
- Technically sound and consistent means for conducting analyses for
  - Well head protection area delineation
  - Prediction of long and short-term groundwater levels
  - Optimization of water supply facility operations
  - Estimation of surface water impacts from groundwater pumping operations
Model Methodology

- Use SEWRPC Regional model as framework
- Review and integrate appropriate data and information from related studies
- Add detail
  - Add layers and cells
  - Input available local data from test borings and surveys
- Technical work will be done by consultant (Ruekert & Mielke) under SEWRPC staff oversight with review by USGS and WGNHS
- Project cost of $44,000 split by cities of Muskego and Waukesha, and villages of East Troy and Mukwonago