



Our Mission:

"To educate and provide opportunities for people of diverse interests to work together to improve the environmental, recreational, cultural, and economic resources of the Rock River Basin"

Rock River Coalition Announces Creation of a Groundwater Flow Model

The Rock River Coalition, with generous financial support of numerous communities, businesses, individuals, organizations and agencies, announces the creation of a groundwater flow model. The model, created with a program called GFLOW, was developed to help communities, businesses and land use planners understand groundwater flow in their communities and will help communities protect water source areas for wetlands, streams and current water supply wells. The modeled area is the length of the Rock River and its surface water drainage from the river's origin in southern Fond du Lac County to where the river exits the state at Beloit. The model includes rivers that flow into the Rock River such as the Yahara, Crawfish and Bark, and also Horicon Marsh.

The GFLOW model is a one layer, steady state (average conditions) model that simulates groundwater flow and its interaction with surface water features. Specific aspects of the GFLOW model include:

- Simulates the major hydrogeologic features of the Rock River basin including bedrock and surficial aquifers
- Provides groundwater flow directions within the basin and provides hydrogeologic data for the Rock River Basin
- Models surface water/groundwater interactions and identifies where streams and lakes gain water from the aquifer, and where they lose water to the aquifer
- Provides a greater understanding of base flow to the Rock River
- Can serve as the foundation from which local or site specific models can be developed, which are useful tools to evaluate:
 - Potential impacts of high capacity pumping wells on nearby wetlands, streams, lakes & rivers
 - Effects of potential water management programs

The model covers a large area and is designed to evaluate effects of regional changes, such as long term climate shifts and large scale land use changes. Some refinement of the model may be needed to address local questions.

"The ability of this model to be used as the basis for site specific models will save planners and the business community time and money in evaluating the impacts of a new groundwater pumping well on nearby streams and the water table," said Joe Dorava, GFLOW Coordinator for the Rock River Coalition. "It is a valuable tool that can be used to make sure there aren't unintended consequences from pumping groundwater to the local area."

To learn more about the model and its uses, go to <http://basineducation.uwex.edu/rockriver/groundwater.cfm> or contact Suzanne Wade of the Rock River Coalition at 920-674-8972. More information about the Rock River Coalition can be found at <http://www.rockrivercoalition.org/>.