Great Miami Ground Water Observatory

Quantitative Assessment of Groundwater Change & Geochemistry

University of CINCINNATI

The Observatory

The Great Miami Ground Water Observatory is a catalyst for interdisciplinary, field-based research to better understand the intricacies of the water cycle and potential threats to our natural environment and public health. It is the first of its kind designed to continuously monitor the geochemistry and flow in the critical zone between the Great Miami River and the adjacent alluvial aquifer.

The station is powered by a photovoltaic panel that rises above the riparian canopy. Data loggers in six uniquely designed monitoring wells collect data which is sent to a data server through a cellular data modem mounted on the central equipment pylon. A 300 gallon-per-minute pumping well enables stressing of the aquifer to determine its basic hydrologic properties. The elevation of the pylon protects sensitive equipment above flood stage enabling it to collect and transmit data during flooding events.

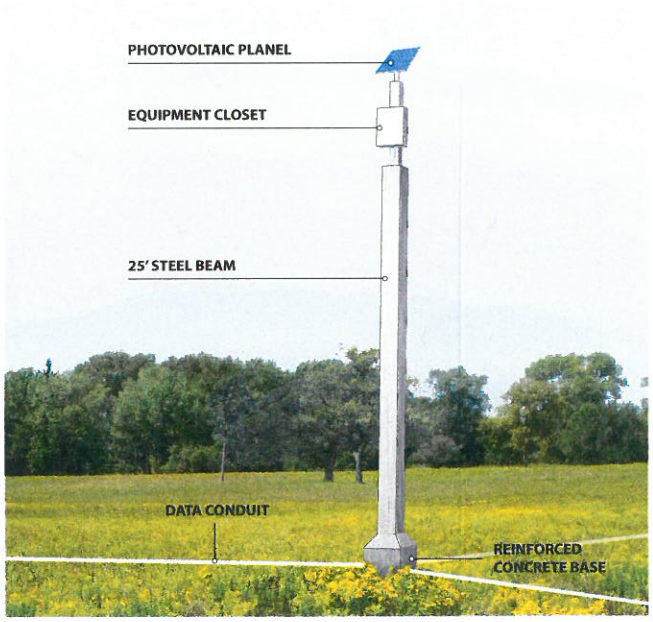
This data is also made available to the public on the Great Miami Ground Water Observatory website.

Map Legend

- EQUIPMENT PYLON
- DEEP OBSERVATION WELL
- SHALLOW OBSERVATION WELL
- DATA CONDUET
- PUMPING WELL

Site Map

Equipment Pylon



Water Exchange