

Application Form
2006-07 TWRI Mills Scholarship Program

1. Name of Student and TAMU Student ID Number.

Vanessa Kelly

2. Name and Contact Information for Faculty Advisor or Committee Chair.

Dr Ron Kaiser
rkaiser@tamu.edu
979-845-5303

3. Description of the student's proposed research, emphasizing how it will address a water resources-related concern (one page or less).

This summer I'm working with a private company called Water Resources Management and with the Brazos Valley Groundwater Conservation District (BVGCD). My job is to find a way to inventory all the wells in Brazos and Robertson County. Currently the TWDB had a large database of wells, but it does not include every well that has been drilled. TCEQ has an enormous quantity of files containing well driller reports. These need to be added to the existing database as well as those drilled in the future. When an application for a new well arrives, the goal would be to enter it into the database and model its effect on the aquifer by generating a map showing trends in water level and quality. This way the GCD could make an informed decision on whether or not to approve the application. Also, in areas where significant declines in quantity or quality of water are detected, restrictions on pumping or spacing could be imposed.

My research would involve finding historical well data and then organizing it into a database that will be capable of modeling trends in water quantity and quality for each aquifer in Brazos and Robertson County. Also it is important to continually monitor a group of existing wells in areas of concern. If all GCDs in TX were eventually able to use the database for management decisions, then our groundwater may continue to provide a reliable supply.

4. Proposed use of funds resulting from this Scholarship (for example, to pay tuition, conduct research, etc.). One to two paragraphs or less.

Funds resulting from this scholarship would be used to pay for school fees and to conduct research. Some expenses would include mileage to the TCEQ, Austin, and Hearne (BVGCD). Also, equipment to monitor wells could require a GPS unit to get latitude, longitude, and elevation for several wells that lack such data.

5. Intended career path the student anticipates pursuing. (One to two paragraphs or less).

After graduation in May of 2007, I hope to continue working as a consultant for Water Resources Management L.P., in Austin. They are a small company that brings together policy, finance, and science to achieve efficient management of water. They work with cities to find where they can reduce losses in the transit of water from the distribution system to the customers. Also they perform rate studies and take on a variety of other projects. I would like to continue my summer work and attempt to get all the groundwater districts in the state to inventory their wells the same way. This would allow water levels and water quality in each aquifer to be monitored.