

## **NeRWA Receives EPA Grant**

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In August of 2005, the Nebraska Rural Water Association (NeRWA) received a grant from the United States Environmental Protection Agency (USEPA). This grant was received for educating and involving state Future Farmers of America (FFA) chapters in source water protection for their communities. The receipts of this grant were to be used to purchase equipment and educational materials to complete the objectives of the project. Equipment purchased through this grant includes three groundwater models, three Global Positioning System (GPS) units and three Hach colorimeter nitrate test kits. Educational material includes classroom curriculum and handouts for local public schools to use.

Of the three groundwater models purchased, two are manually operated models built by the University of Nebraska. The third model is automatic and uses an aquarium pump to continually re-circulate the water through the model. This model also has a rainmaker that attaches to it as an aid in explaining the water cycle. NeRWA already had one groundwater model built by UNL, so that means there are now four groundwater models available for demonstrating the movement and other characteristics of groundwater. Systems wanting to borrow these models to illustrate the potential for contamination of groundwater should contact the NeRWA office when they have a demonstration date set.

The GPS units purchased through the grant will allow systems to locate and map contaminant sources within their wellhead or source water protection areas. The units are accurate to about ten feet, and NeRWA has the software to place the GPS locations on aerial maps of the area. Combined with the two GPS units NeRWA already has, this allows a system to use five GPS units to map the contaminant sources for their system. With the assistance of the local FFA chapter, 4-H groups or local science classes, the contaminant source inventory for a system can be done within a reasonable amount of time. NeRWA personnel would be willing to attend FFA meetings or school classrooms to explain the use of the equipment.

The nitrate test kits are available for any system to use to test area wells for nitrate concentrations. Although the test kits are not accurate enough to satisfy the State Department of Health for testing purposes, they are accurate enough to indicate possible concerns local area residents with private wells may have. They could also assist local farmers in determining the amount of fertilizer needed on specific fields by considering the amount of nitrogen available through the ground water. If local groups would be willing to sponsor a well testing event, NeRWA personnel would come to the event and instruct the group on testing procedures and test result reporting. It would be recommended that any results that approach the Maximum Contaminant Level (MCL) of ten mg/l should be tested by a certified laboratory if the well owner is concerned about the high nitrate reading.

The classroom educational material has not yet been purchased, but would be available to schools on a “while supplies last” basis. The material consists of Project WET (Water Education for Teachers) modules, Healthy Water, Healthy People curriculum and classroom handouts. This material will be purchased in the next month or so and would be available for classes next year.

If any system would like to use any of this equipment or would like to discuss the possible applications of any of it, they should contact the office and someone will contact them. This represents an opportunity for every system in the state to become proactive in protecting their source of drinking water while educating the youth in the area at the same time. A properly educated youth of today will result in knowledgeable adults making wise decisions concerning the protection and proper use of the available drinking water in the future.