

## **WILLIAMS COUNTY WIND MONITORING STUDY**

### **Williston Basin RC&D**

The Williston Basin RC&D Council and Tri-County Regional Development Council have teamed up to conduct a MET (Meteorological Evaluation Tower) wind monitoring study in Williams County for assisting with potential wind energy development projects in the future. In 2008, information meetings were conducted with the Councils, the area rural electric cooperative representatives, and the area economic development directors to discuss interest in initiating this project. In early 2009 grant funding was secured for this project through both Councils where a consultant was hired to first assist with project site location.

In the past, there was existing wind monitoring towers in Williams County that were located within two communities. Although useful wind data was collected from these sites, it was determined better data could be collected from increasing tower height, utilizing areas of higher elevation at the tower sites, and eliminate the potential for micro-climate interference with wind speed monitoring due to tower locations situated within communities.



Factors for determining project site selection included finding suitable locations that were over 2200 feet in elevation, easy accessibility, and donation of areas needed to facilitate data collection equipment including one new tower site for a temporary period of time. The monitoring sites chosen included approval and use of an existing communication tower owned by Williams County located approximately 2 miles north of Epping, North Dakota; and the erection of a new tower located on private owned land situated 12 miles south of Grenora, North Dakota. Data will be collected every 6 months over a two year period from each site.

*New MET tower located south of Grenora, ND.*

The existing communication tower is approximately 290 feet in height and the new tower is 165 feet in height. The consultant for this project's next step was to coordinate the purchase of the MET monitoring equipment (six anemometers, two wind vanes, and one temperature sensor for each tower), data loggers for each site, computer software, and direct and supervise the labor to install all MET monitoring equipment and erect the new tower. Following the completion of this two-year study, all monitoring equipment and the new tower will be removed from the sites. All data will be collected by Tri-County Regional Development Council for compilation, analysis, and storage. The consultant will later assist with the analysis of the data and development of the information reports.

Total cost for completing this two-year study is estimated at \$40,000. Grant funding has been secured through the North Dakota Division of Community Services (\$20,210), Williston Area Economic Development Star Fund (\$15,211), Williston Basin RC&D Council (\$2,500), and in-kind provided by Tri-County Regional Development Council (\$2,100). The new tower and two data loggers were installed in October 2009. Questions on this project can be addressed by Jeff Roel, RC&D Coordinator at (701) 774-1382.



*Installation of data logger at Epping, ND tower site.*