

Water Resources Advisory Panel Update

By Jessica Harder

The Water Resources Advisory Panel (WRAP) and University of Nebraska–Lincoln are making progress on the panel’s top water research priorities. In April, WRAP identified potential funding sources for four water research projects UNL water faculty previously proposed to the panel, aimed at specifically addressing WRAP water research priorities.

Since then, UNL, water faculty members and other state water leaders have been working to make progress on these important projects.

“WRAP has made tremendous progress since its inception, toward identifying goals for water quantity research in the state, and helping to move forward together with UNL researchers and administrators to address those top priorities,” said Kyle Hoagland, director of the UNL Water Center.

Aside from significant contributions UNL will make toward salaries and facilities for the top-ranked riparian vegetation modeling project, NU’s Institute of Agriculture and Natural Resources’ (IANR) Agricultural Research Division and the NU Rural Initiative provided funding to help get the research started this summer.

The project aims to develop models that will provide decision makers with the opportunity to weigh the potential benefits with the negative ramifications of tree harvesting, and ultimately will result in a basin-wide understanding and prediction of hydrologic impacts of riparian invasive species removal throughout the state of Nebraska.

Equipment needed for the riparian vegetation project will be purchased through a one-time grant from IANR. The Rural Initiative contributed significant funding for the first year for the remainder of project needs. Funding for the next two years of the three-year research project is being sought with the help of the Nebraska Department of Natural Resources (DNR).

The riparian vegetation study, led by new water initiative faculty Erkan Istanbulluoglu, Durelle Scott and John Linters, piggybacks on another DNR- funded project lead by UNL’s Derrel Martin.

DNR and UNL researchers are also collaborating to apply for competitive grants for additional dollars needed to fund the panel’s other top three projects. One such effort is being undertaken to fund the highly ranked Nebraska Climate Variability project proposed by researchers at UNL’s National Drought Mitigation Center.

If funded, this project will educate farmers, ranchers, recreation and tourism businesses, environmental monitors, municipal water providers, and other community leaders and advocacy groups within each targeted sector. The goal of the project is to raise awareness of projected temperature and precipitation fluctuations and the likely effects of these changes, and to begin assessing economic impacts of climate change.

NDMC's Mike Hayes, Cody Knutson and Megan Sittler among others, will lead this climate project.

Funding is being sought for another WRAP high-priority project.

Suat Irmak and colleagues, proposed to lead a study on quantification of surface soil evaporation for different soil and crop management practices.

If funded, the project will help farmers "Maximize the value of water per acre inch pumped." The study will target maximum net return (dollars) rather than maximum yield. Maximizing the effectiveness of precipitation can substantially increase the availability of water and water use efficiency for crop production in agro-ecosystems.

The ten-member WRAP was formed last year at the request of NU Vice President and IANR Harlan Vice Chancellor John Owens, and Vice Chancellor for Research and Dean of Graduate Studies Prem Paul. The group, which includes state water policy leaders, meets to help guide and advise UNL on state water research needs, education and outreach programs. WRAP is coordinated through the UNL Water Center.