NEBRASKA WATER SUSTAINABILITY FUND GRANT FOR APPLICATION NO. 4118

Titled: Estimating Recharge toward Sustainable Groundwater and Agriculture, Central Platte NRD

Grant amount. \$ 151,680

Project Progress

Project progress includes collecting recharge information at each of the 8 recharge sites established by USGS and CPNRD in 2008 (see figure below). The site equipment includes weather station instruments, telecommunications equipment (cell phone modem), Campbell Scientific data logger, water level recorder, and heat dissipation probes. The data collected at each site is transmitted daily to the USGS office in Lincoln to a computer and uploaded to the USGS NWIS system for storage and monitoring. Soils samples and water samples have also been collected and analyzed this past year for chloride and nitrate movement.



Other progress this past year includes developing 1-D HYDRUS models for several sites.

Project Partners

To begin meeting the overarching project goals, a cooperative partnership between the Central Platte Natural Resources District (CPNRD), U.S. Geological Survey (USGS) Nebraska Water Science Center (NWSC), and San Francisco State University (SFSU) was put in place by contracts to establish 8 the recharge assessment sites.

Project Activities for coming Year

Activities for the coming year include continued collection of the recharge data for analysis of ground water recharge by land use type. We also plan to develop additional 1-D HYRUS models for each site and review the models to determine if they have application for other areas within the CPNRD.

Projected project expenses for remainder of project

We have spent around 1/3 of the funds this past year and plan to spend similar amounts over the next 2 years. We plan to submit a request for reimbursement once payments have been made to USGS and SFSU this next quarter.

Reassessment of Project Benefits

We have not reassessed the project benefits and it will probably be toward the end of next year before model development is completed. Based on how usable the models are will determine how much benefit comes from the project.