

# Integrated Water Management Current Projects

November 2012

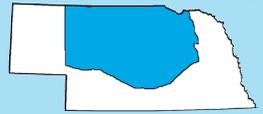


## Upper Niobrara-White NRD Conjunctive Water Use Model



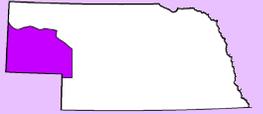
The objective of this model is to evaluate and implement water management options and assist in meeting the goals of the NRD's Integrated Management Plan (IMP), including minimizing groundwater depletions and sustaining water in the aquifer. The model will explore how irrigation development has impacted the Niobrara River and include a surface water operations model, groundwater flow model, and soil-water balance model.

## Central Nebraska Modeling Study



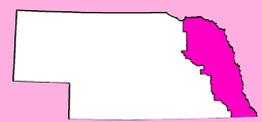
This study will characterize water supplies, uses, and demands in portions of the Niobrara, Loup, and Elkhorn Basins. It will provide an accounting structure to aid in the annual assessment of basin water supplies in the areas not yet designated as fully appropriated. The model will incorporate a surface water operations model, groundwater flow model, and soil-water balance model.

## Western Water Use Model



This study will build analysis tools to efficiently manage water resources and meet the goals of the Upper Platte Basin NRDs' IMPs and the Basin-Wide Plan, including reaching a fully appropriated status and meeting the terms of the Platte River Recovery Implementation Program (PRRIP). The study covers the Upper Platte Basin from upstream of Lake McConaughy to the Wyoming state line and Lodgepole Creek in the South Platte Basin. The model will include a surface water operations model, groundwater flow model, and soil-water balance model.

## Lower Platte & Missouri Tributaries Assessment



This assessment will develop a conceptual model and datasets to assist in the annual evaluation of basin water supplies and make recommendations about developing a potential groundwater modeling tool. The study covers the surface area of Nebraska tributaries that drain into the Missouri and Lower Platte Rivers and the groundwater areas that impact surface water flows in the region.



## COHYST 2010



The Cooperative Hydrologic Study (COHYST) 2010 will develop analysis tools to effectively manage water resources and meet the goals of the Upper Platte Basin NRDs' IMPs and the Basin-Wide Plan, including reaching a fully appropriated status and meeting the terms of the PRRIP. The study covers the Upper Platte Basin from upstream of Chapman, NE to the upstream end of Lake McConaughy. The model will include a surface water operations model, groundwater flow model, and soil-water balance model.

## Republican Basin Conjunctive Management Study



The purpose of this study is to evaluate current conditions, to provide tools to better manage Nebraska's water allocation under the Republican River Compact, and to meet the goals and objectives of the basin's IMPs. The study will estimate current and future water supplies and demands and evaluate improvements to infrastructure and operations.

## Blue Basin Groundwater Model Project



This project will evaluate datasets and develop a regional groundwater flow model to assist with the annual evaluation of basin water supplies. The end result will be a documented model that simulates the interaction of surface water and groundwater over time in the Big Blue and Little Blue River Basins.