

# Delineation of 1997 Land Use Patterns for The Cooperative Hydrology Study in The Central Platte River Basin

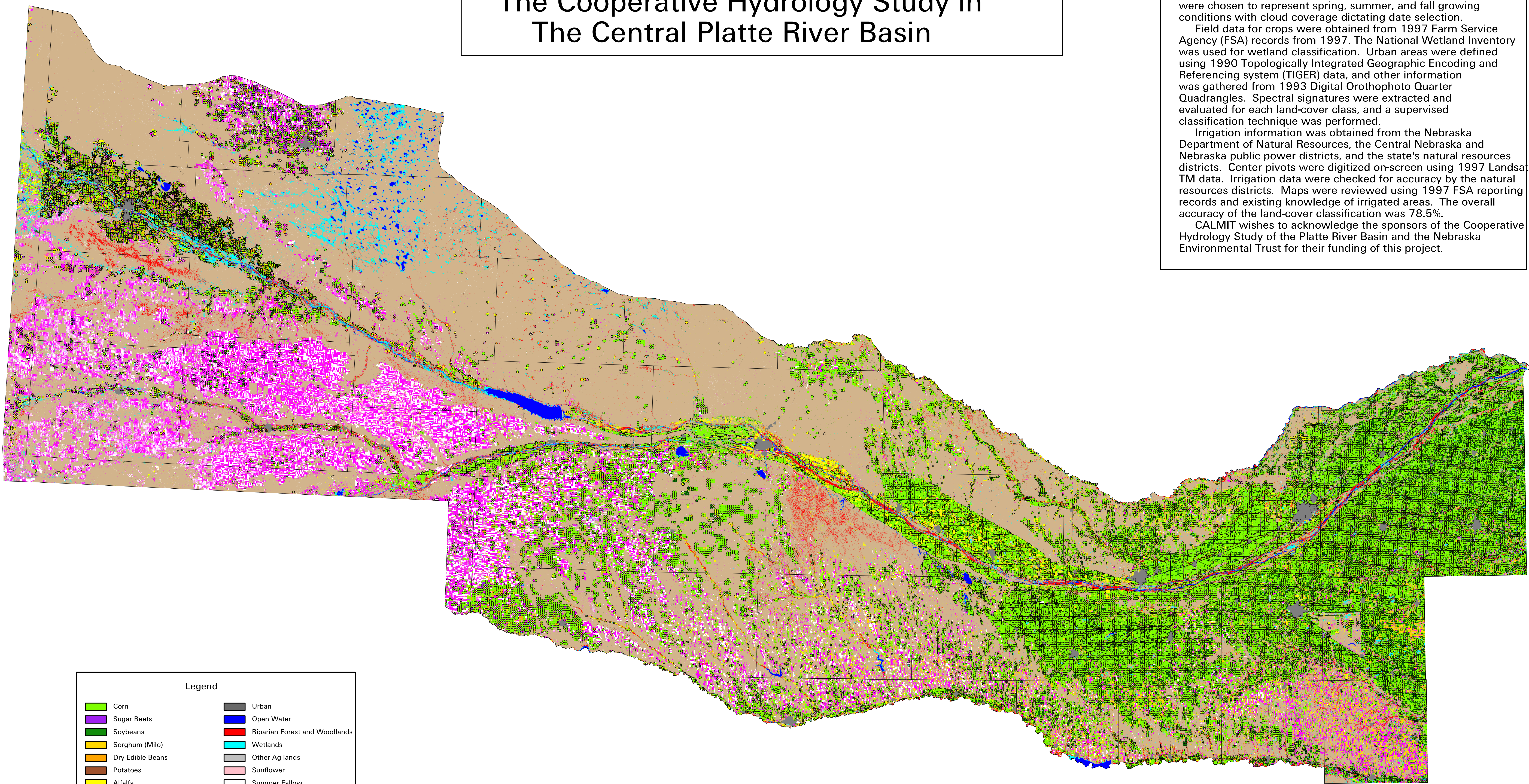
## Project Description

This project involved integrating remote sensing, spatial, and field data analysis to provide an accurate map of crops and other land-cover in the central Platte River basin in 1997. Multi-date Landsat Thematic Mapper (TM) satellite imagery were used to generate this map. Imagery were chosen to represent spring, summer, and fall growing conditions with cloud coverage dictating date selection.

Field data for crops were obtained from 1997 Farm Service Agency (FSA) records from 1997. The National Wetland Inventory was used for wetland classification. Urban areas were defined using 1990 Topologically Integrated Geographic Encoding and Referencing system (TIGER) data, and other information was gathered from 1993 Digital Orthophoto Quarter Quadrangles. Spectral signatures were extracted and evaluated for each land-cover class, and a supervised classification technique was performed.

Irrigation information was obtained from the Nebraska Department of Natural Resources, the Central Nebraska and Nebraska public power districts, and the state's natural resources districts. Center pivots were digitized on-screen using 1997 Landsat TM data. Irrigation data were checked for accuracy by the natural resources districts. Maps were reviewed using 1997 FSA reporting records and existing knowledge of irrigated areas. The overall accuracy of the land-cover classification was 78.5%.

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Legend	
Corn	Urban
Sugar Beets	Open Water
Soybeans	Riparian Forest and Woodlands
Sorghum (Milo)	Wetlands
Dry Edible Beans	Other Ag lands
Potatoes	Sunflower
Alfalfa	Summer Fallow
Small grains	Roads
Range/Pasture/Grass	(Outline) Irrigated Areas
	County Boundaries

