## A Drought Perspective: Comments from the National Drought Mitigation Center

NP211 Water Availability and Watershed Management Stakeholder Workshop Michael Hayes, Director and Professor National Drought Mitigation Center School of Natural Resources University of Nebraska-Lincoln

Photo: Nicole Wall, NDMC, Platte River, August 2012



## Remotely Sensed Indicators for Agricultural Drought Monitoring

Over the past decade, satellite remote sensing advanced to develop suite of tools and data products that characterize several components of hydrologic cycle related to vegetation and agricultural drought.

Remotely sensed data tools and products that describe:

- 1) sub-surface conditions = soil moisture
- 2) Vegetation conditions = NDVI, NDWI, VHI, LAI, and FAPAR
- 3) Vegetation-atmosphere boundary layer conditions = evapotranspiration (ET)
- 4) Precipitation inputs = rainfall estimates



## Slide Courtesy of Brian Wardlow, UNL



## Nebraska's Agriculture and Water Resources

- Major river systems: Platte, Loup, Republican
- High Plains Aquifer, largest in North America
  - More than 2 billion acre-feet of water
  - Decades of data characterizing the aquifer
- Nebraska #1 in irrigated cropland in the US
- Ranks 4th nationally in value of agricultural products sold

Slide Courtesy of Monica Norby, UNL