GIS Applications Used in Making the U.S. Drought Monitor

Deborah J. Bathke
National Drought Mitigation Center
NOAA’s Drought Risk Management Research Center
University of Nebraska-Lincoln

Slides courtesy of Eric Luebehusen
U.S. Drought Monitor

Created & edited in GIS Software

http://droughtmonitor.unl.edu/
Transitioned from Corel Draw to ArcMAP (GIS) in August, 2003.
GIS allowed for a new way of assessing drought information...
Increased detail in drought depiction
Agricultural-specific statistical assessments
Extract data by different boundaries
Use of the USDM as a tool for triggering aid to producers

While authors are flattered such critical decisions are based on the USDM, aid triggers do **NOT** factor into the USDM depiction.
Wealth of GIS data that allows authors to depict different types of drought on one map.
GIS allows us to turn layers on & off
Allows us to overlay drought areas with hydroclimate data
AHPS Gridded Precipitation

Using PRISM Data
- Departure from Normal
- Percent of Normal
Station-based Standardized Precipitation Index (SPI)
USGS Streamflow

- Real-time
- 7-day
- 14-day
- 28 day
VegDRI & Evaporative Stress Index (ESI)
Previous week’s drought layers
Topographic Data
Timely GIS data aids USDPM authors
Questions?

Deborah Bathke
dbathke2@unl.edu
402-472-6199
There's no crying during a USDM shift