

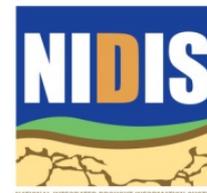
Drought Ready Communities

Kelly Helm Smith

June 9, 2011, Chicago, Illinois

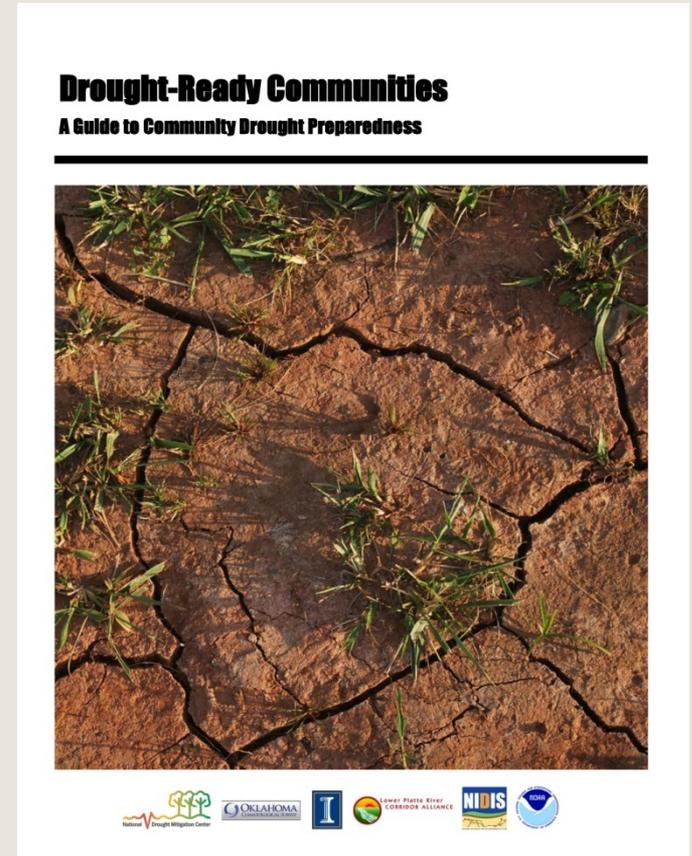
Building a Sustainable Network of Drought
Communities

A NIDIS Engaging Preparedness Communities
Workshop

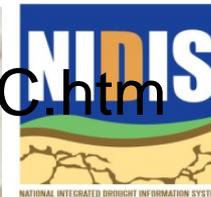


The project

- 2 years (June 2008-June 2010)
- Funded by NOAA's Climate Program Office, Sectoral Applications Research Program (SARP), and NIDIS

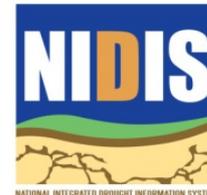


<http://drought.unl.edu/plan/DRC.htm>



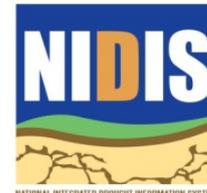
The Research Team

- National Drought Mitigation Center
 - Mark Svoboda, Kelly Smith, Donna Woudenberg, Cody Knutson, Melissa Widhalm
- Lower Platte River Corridor Alliance
 - Meghan Sittler
- Oklahoma Climatological Survey
 - Mark Shafer, Heather Lazrus, Renee McPherson
- Office of the Illinois State Climatologist
 - Jim Angel, Mike Spinar

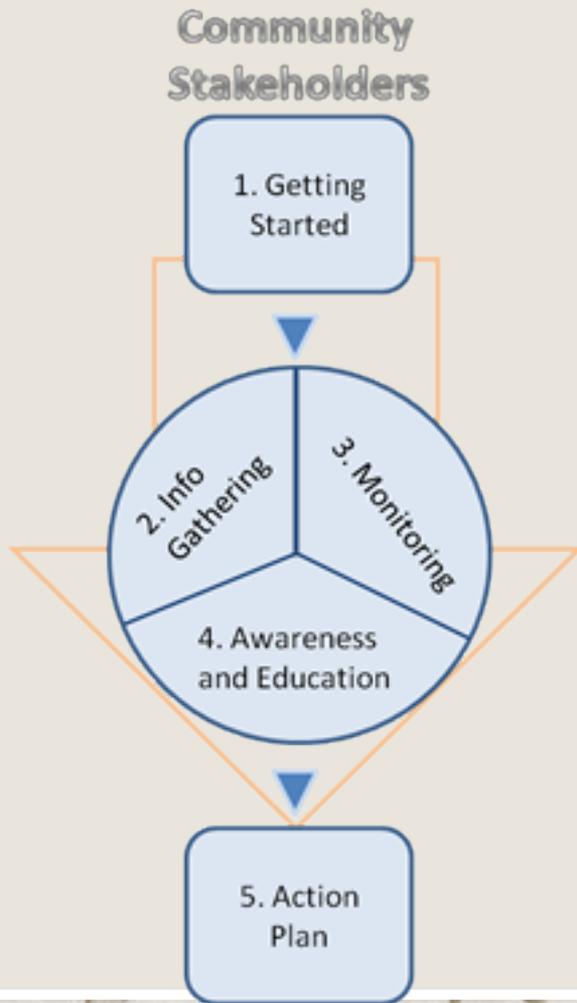


The Pilot Communities

- Nebraska City, Nebraska, pop. ~ 7,000
 - Wells draw from aquifer under the Missouri River
- Decatur, Illinois, pop. ~ 82,500
 - Surface water
- Norman, Oklahoma ~ 100,000 +
 - Surface and ground water

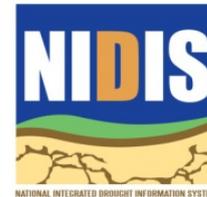


Drought Risk



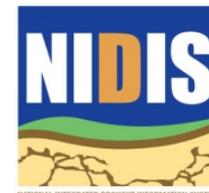
- 1: Invite & Commit
- 2: Gather Information
- 3: Start Monitoring
- 4: Plan for Education & Awareness
- 5: Plan Responses to Reduce Impacts

Drought-Ready



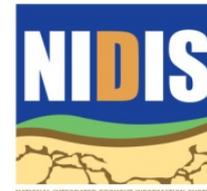
Worksheets

- Benefits of Drought Planning
- Contact List
- Perceptions of Drought
- Available Water Supplies
- Top Water Users
- Cost-Benefit Comparison
- Linking Thresholds to Actions



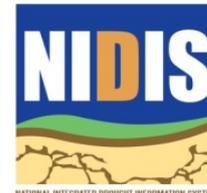
Section 1: Getting Started

- Establish a leadership team.
- Engage with stakeholders.
 - Gather community perceptions of drought 
 - Benefits of drought planning 
- Include agencies and regulators
- Develop a contact list 



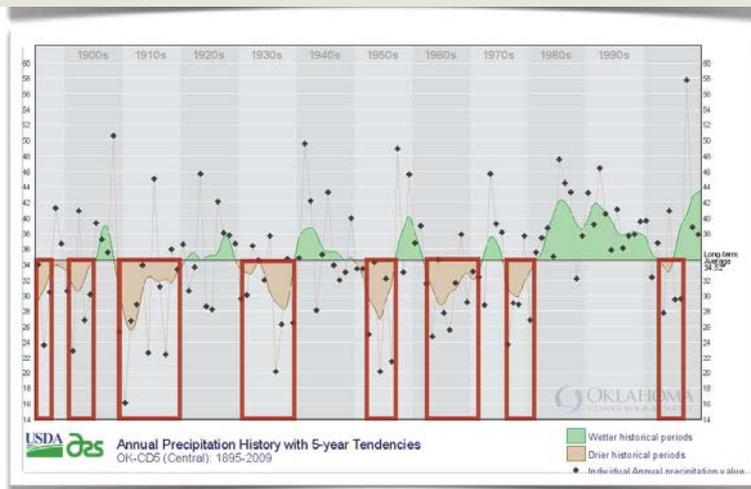
Section 2: Information Gathering

- What water supplies are available? 
- Who are the top water users? 
- Drought climatology 
- How has drought affected the community in the past? 
(AKA “Identify the drought of record.”)
- What increases or decreases the effects of drought? 



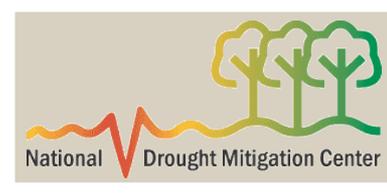
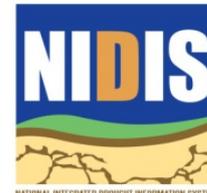
Finding from Norman, OK

“The past three decades have been significantly wetter than previous decades. Hence, the current generation of Norman residents has not experienced as long or as intense of drought conditions as previous generations.”



Section 3: Establish monitoring

- A list of drought indicators the community should regularly monitor including:
 - One large-scale climate indicator. 
 - One locally generated indicator directly relevant to your community's water supply. 
 - Drought impact indicators. 
- The names of people who will check the indicators, and the schedule for checking. 
 - Frequency may increase along with drought conditions, i.e., from monthly to weekly to daily



Section 3: Establish Monitoring

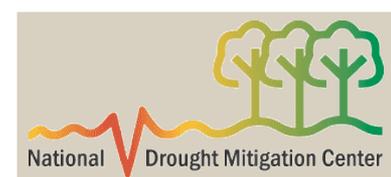
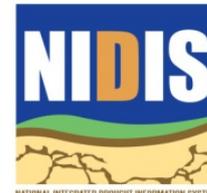
- drought information report template 
- distribution list
- schedule

Drought Information Report, DATE		
Climate-based indicators	USDM: D2	Meghan checked DATE
Hydrologic indicators	14 feet	Fred reported DATE
Agricultural impacts	Est 25% soybean loss	Jill reported DATE
Environmental impacts	Wildlife looking thin	Boy Scout, DATE
Social impacts	River use down, outfitters reporting \$XXX losses	River Guides.org, DATE
Response Actions	Voluntary conservation	Mayor's Office



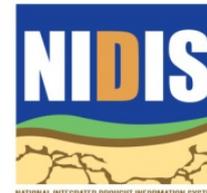
Section 4: Public Awareness & Education

- A strategy and schedule for a public awareness and education campaign (long-term) 
- Any presentations, pamphlets, templates for press releases, or other materials you have developed to publicize drought and response actions in your community (during drought) 



Section 5: Drought Response Planning

- Cost-Benefit Comparison of Action Options 
 - Long-term
 - Short-term
- Link Thresholds to Actions 



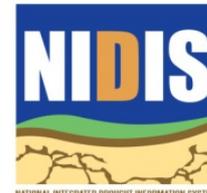
Decatur thresholds & actions

Threshold	Actions, Mar. 1-Dec. 15	Actions, Dec. 16-Feb. 28
613.5 ft asl	Start Vulcan Gravel Pit well; release water from sediment storage site; inspect and clear DeWitt wellfield oxidation basin and discharge ditches	none
613.0	Implement voluntary conservation; press release; start 4 DeWitt and ADM East Plant wells	
612.0	Mandatory conservation, press release	Voluntary conservation, press release, etc.



The way forward

- Seeking additional pilot communities
 - Lessons learned, BMPs, success stories
- How do we integrate drought planning into other processes?



Questions?

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