Drought Ready Communities

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

<table>
<thead>
<tr>
<th><strong>Drought Information Report, DATE</strong></th>
<th>Climate-based indicators</th>
<th>Hydrologic indicators</th>
<th>Agricultural impacts</th>
<th>Environmental impacts</th>
<th>Social impacts</th>
<th>Response Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>USDM: D2</td>
<td>14 feet</td>
<td>Est 25% soybean loss</td>
<td>Meghan checked DATE</td>
<td>Fred reported DATE</td>
<td>Jill reported DATE</td>
<td>River Guides.org, DATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wildlife looking thin</td>
<td></td>
<td></td>
<td></td>
<td>Mayor’s Office</td>
</tr>
<tr>
<td></td>
<td></td>
<td>River use down, outfitters reporting $XXX losses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

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