

The Missing Piece: Drought Impacts

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Meeting Impetus

- Share lessons learned
 - opportunities and challenges
 - best practices
 - path(s) forward
- Establish a Community of Practice



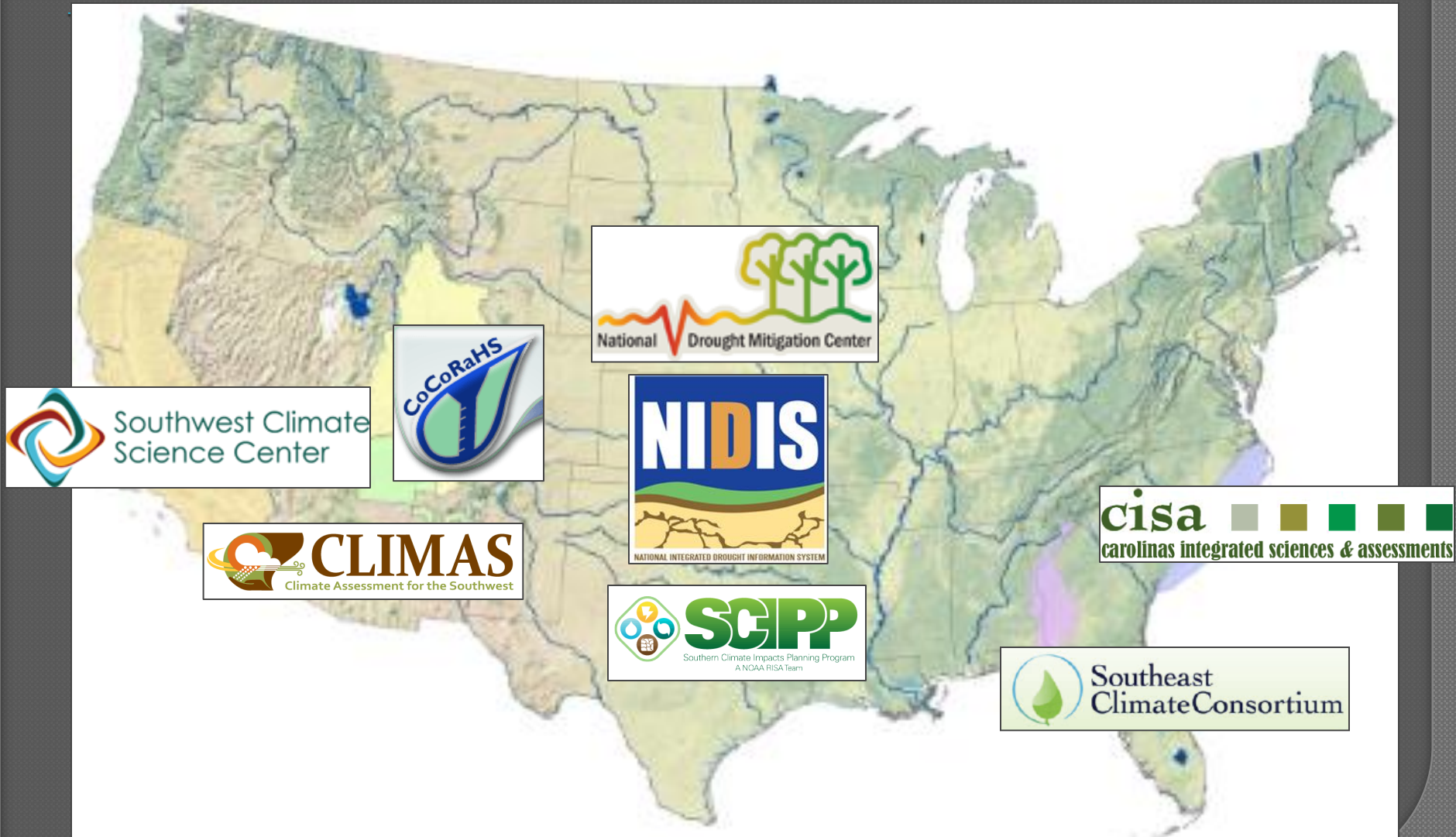
The Missing Piece: Drought Impact Monitoring

Report from a Workshop in Tucson, AZ
MARCH 5-6, 2013

Kirsten Lackstrom, Amanda Brennan,
Mike Crimmins, Lisa Darby, Kirstin Dow, Daniel Ferguson, Keith Ingram,
Alison Meadow, Henry Reges, Mark Shafer, Kelly Smith

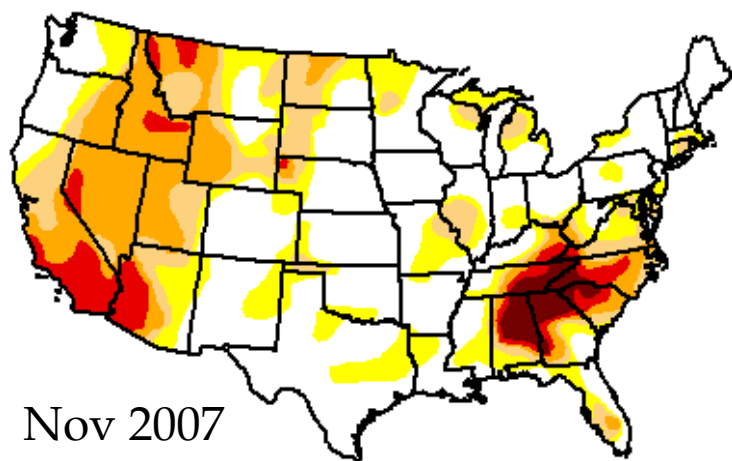


Participants

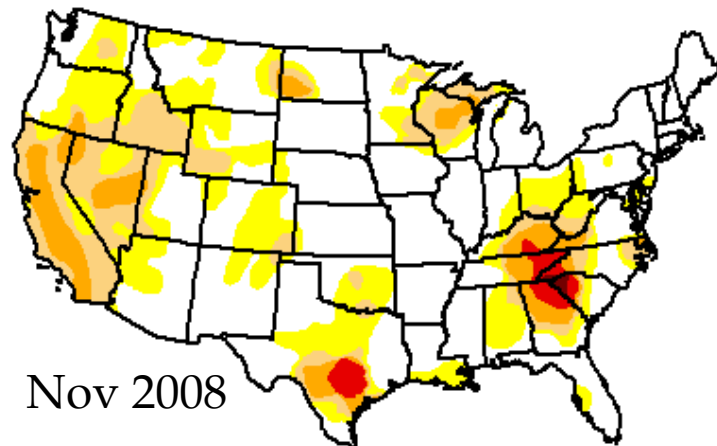


Key themes

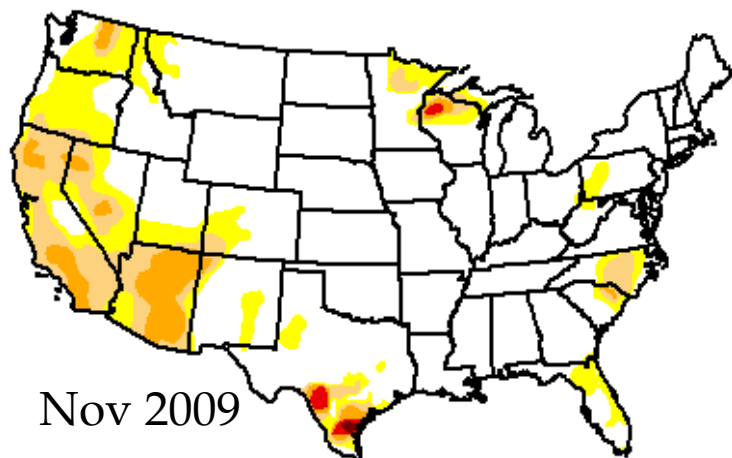
- Challenges to reporting and monitoring drought impacts
- Recommendations for advancing drought impact reporting and monitoring



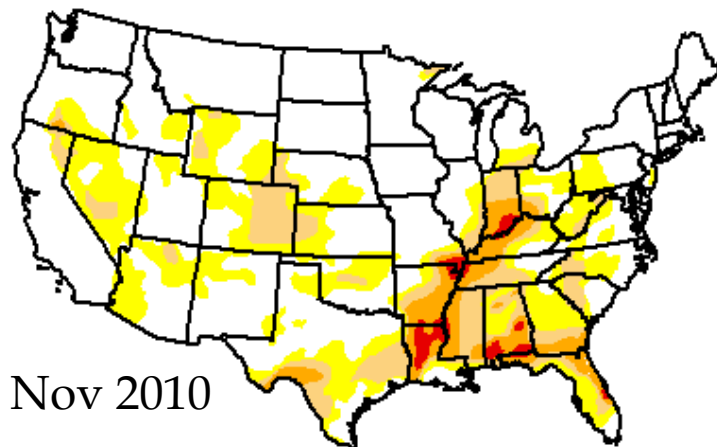
Nov 2007



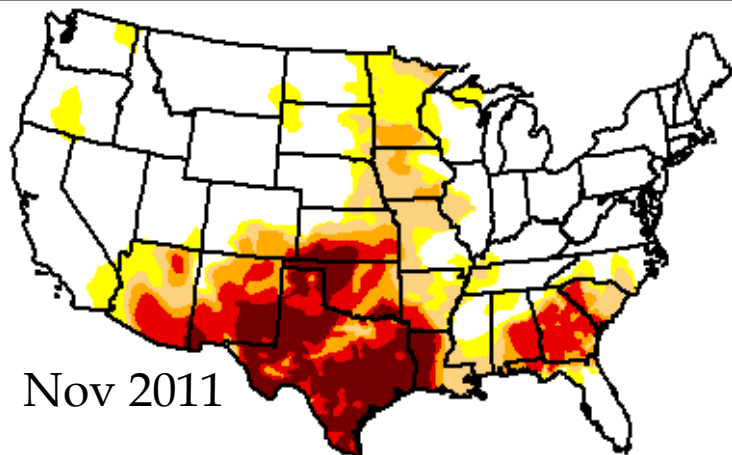
Nov 2008



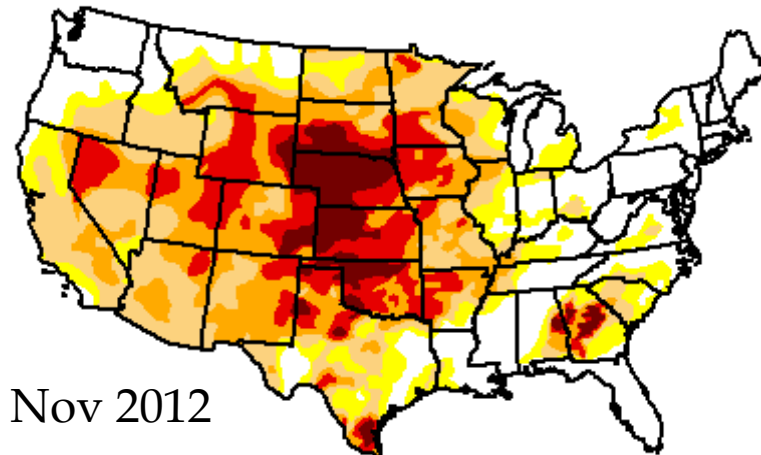
Nov 2009



Nov 2010



Nov 2011



Nov 2012

Challenges: understanding the full range of impacts and regional differences



A home falls into a large sinkhole in Florida



Sand dune migration onto the rangelands of the Hopi Tribe in northeast Arizona



Cypress bay during 2008 drought, Brunswick County, North Carolina

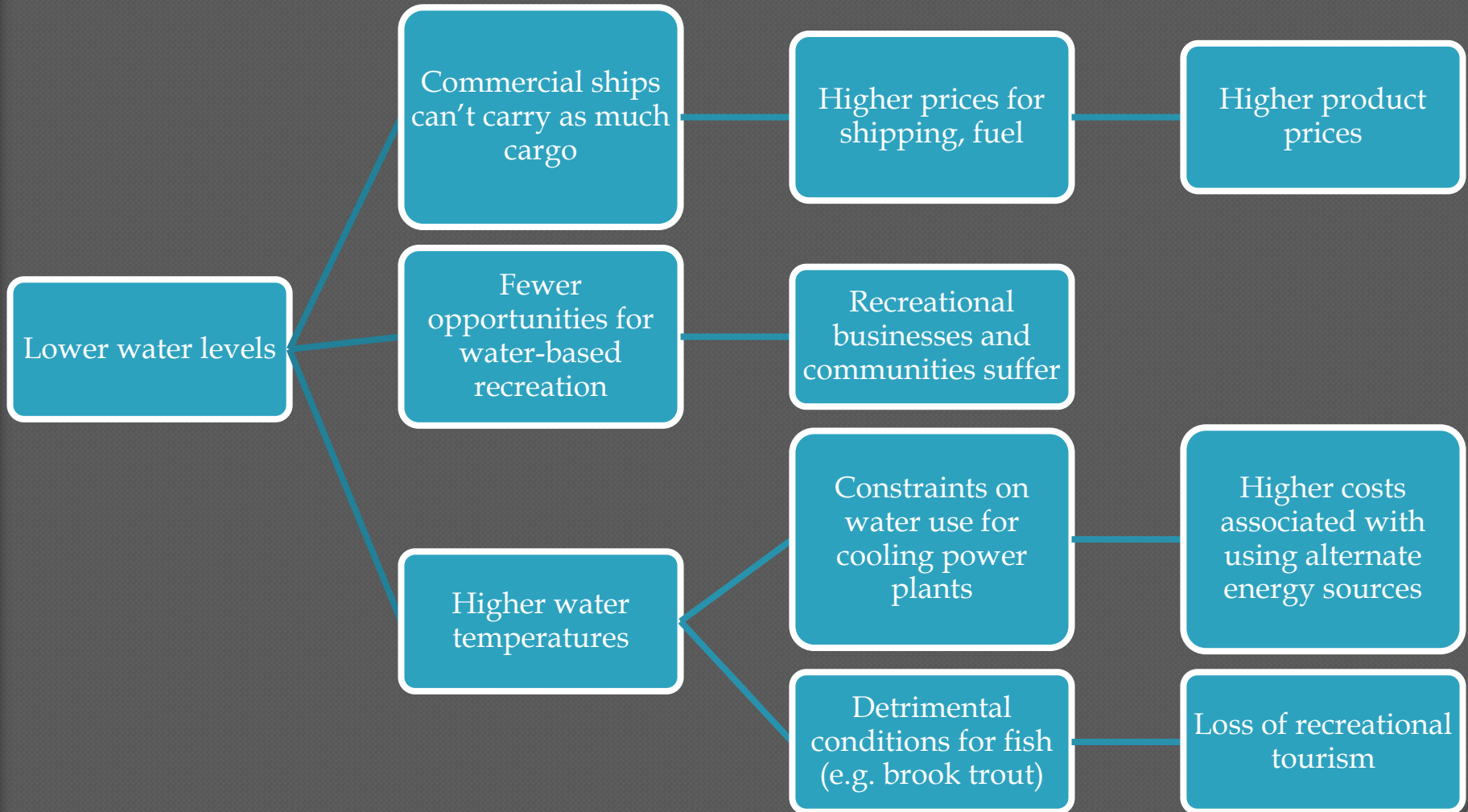
Challenges: defining drought impacts

- ◉ 'less obvious' impacts
- ◉ secondary and more distant impacts
- ◉ multiple stressors
- ◉ onset and recovery
- ◉ system change

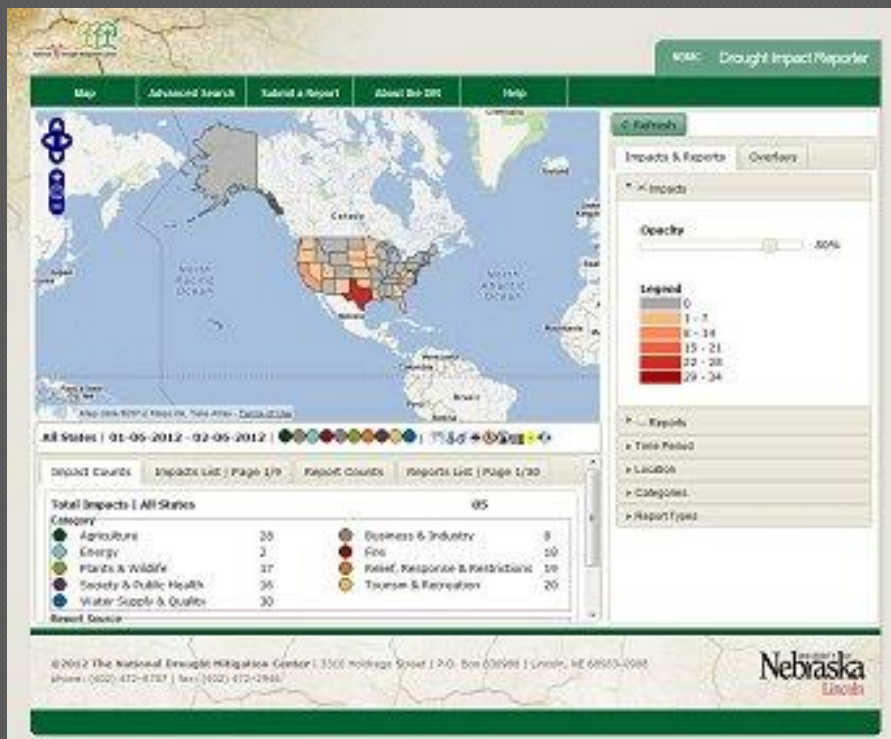


"flash drought" in Arkansas, 2012

Challenges: cascading effects (example)



Challenges: fragmented, diverse investments and efforts

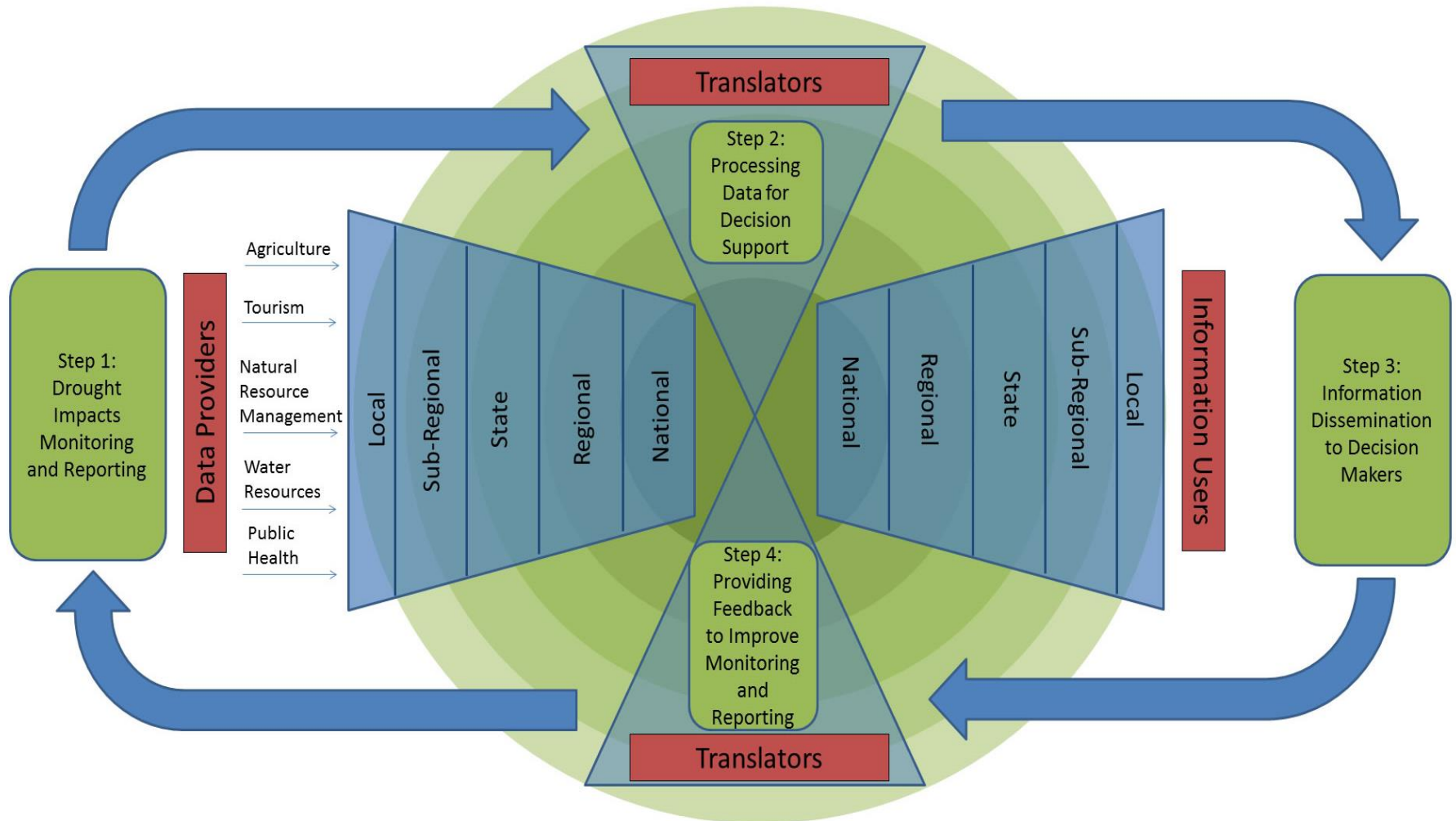


National Weather Service Forecast Office

And more challenges...

- Lessons learned from Meadow et al. (2013)
 - Field of Dreams, or Dream Team? Evaluation of AZ Drought Watch
- Motivating reporting
 - Complexity of drought
 - Reliance on volunteers
 - Disparate incentives and disincentives
- Spot reports

Moving forward: components of a drought impacts monitoring system



Moving forward: evaluate

- *Evaluate* existing drought impacts reporting programs to identify successful approaches and opportunities



Moving forward: foster connections

- Establish and foster effective *connections* between drought impacts reporting and decision making

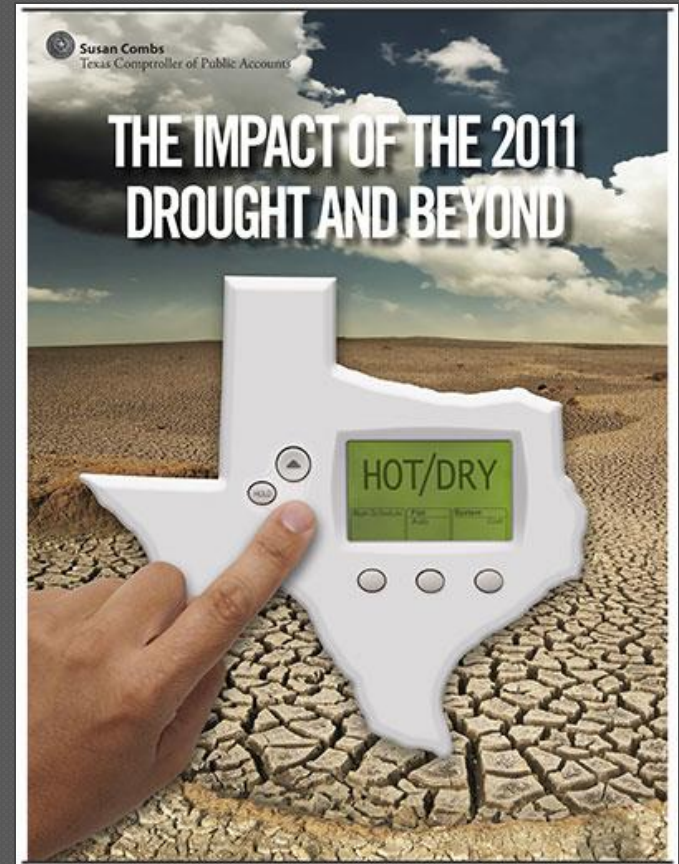


Moving forward: new tools and methods

- Develop *new tools and methods* to motivate reporting, facilitate the collection of impacts data, and improve the communication of drought impacts information



<http://smthree.wordpress.com/2011/11/15/why-do-we-use-social-media/>



<http://www.window.state.tx.us/specialrpt/drought/>

Moving forward: mainstreaming

Agriculture

US Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), Natural Resources Conservation Service (NRCS), Farm Service Agency (FSA)

Forestry and land management

US Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS)

Health

Center for Disease Control (CDC), Environmental Protection Agency (EPA)

Environmental resources, fish and wildlife

US Fish and Wildlife Service (US FWS), National Estuarine Research Reserve System (NERRS), National Phenology Network

Water

US Army Corps of Engineers, EPA

Weather and climate

National Weather Service (NWS) Weather Forecasting Offices (WFO), State Climate Offices, Regional Climate Centers

Moving forward: professionalize and institutionalize

- Investigate and pursue opportunities to “*professionalize*” or “*institutionalize*” drought impacts reporting



- Drought translators needed!

