

Intermountain West Drought Early Warning System Drought & Climate Outlook



Alicia Marrs, NOAA/NIDIS

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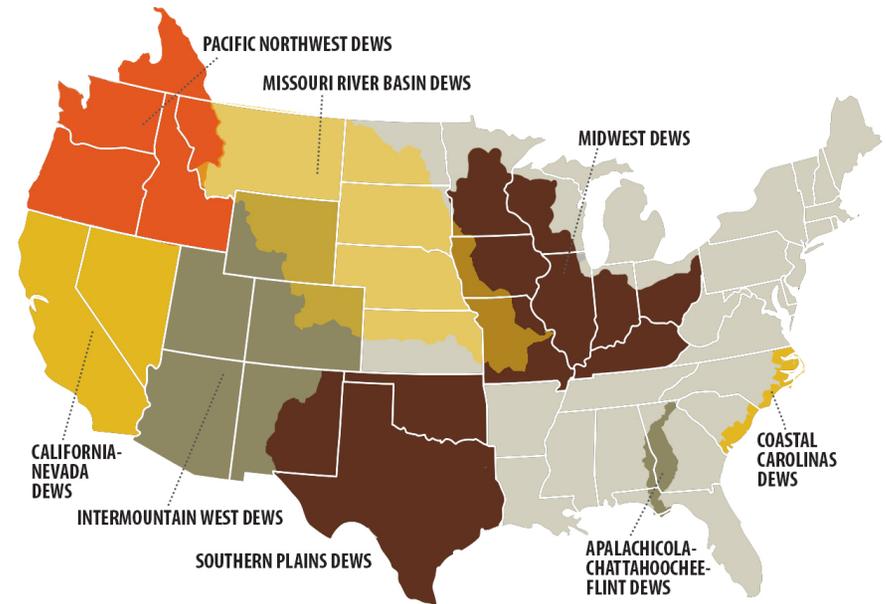
IMW DEWS Drought & Climate Outlook

1. Provide an update on current drought status and a preview of developing climatic events (i.e. El Niño & La Niña) for the region.
2. Showcase current resources, research and tools available to stakeholders to support drought early warning in the Intermountain West.
3. Gather feedback from stakeholders on current needs, to inform the development of the IMW DEWS Strategic Plan.
4. Develop recommendations for future actions, collaborative research, and decision support tools.



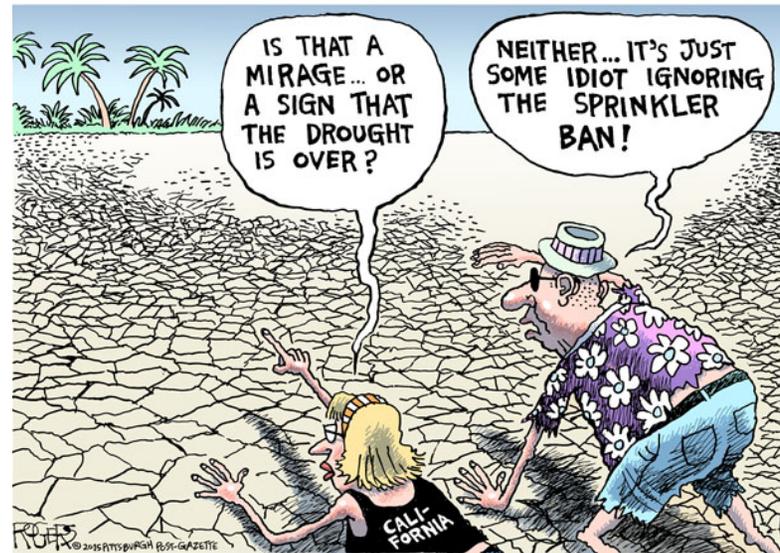
What is the National Integrated Drought Information System (NIDIS)?

- A NOAA program with an interagency mandate.
- Provide a better understanding of how and why droughts affect society, the economy and the environment.
- Improve accessibility, dissemination and use of early warning information for drought risk management.
- Build off of a network of Regional Drought Early Warning Systems (DEWS) to create a National Drought Early Warning System.



NIDIS Goals

- Leadership and networking among all sectors of the economy and services to monitor, forecast, plan for and cope with the impacts of drought
- Support drought research- including indicators, risk assessment and resilience
- Develop educational resources, interactive systems, and tools to promote sound decision making, drought awareness, and response

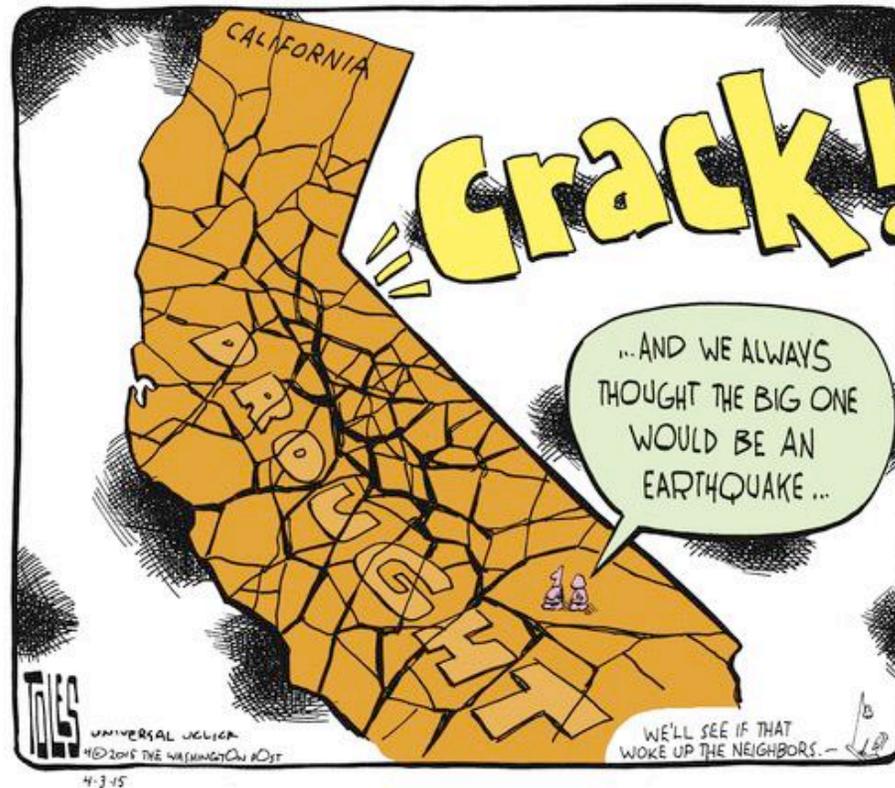


How? Development of Early Drought Warning Systems



What *really* is Drought Early Warning?

Provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response¹



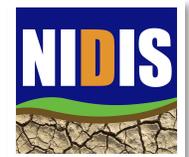
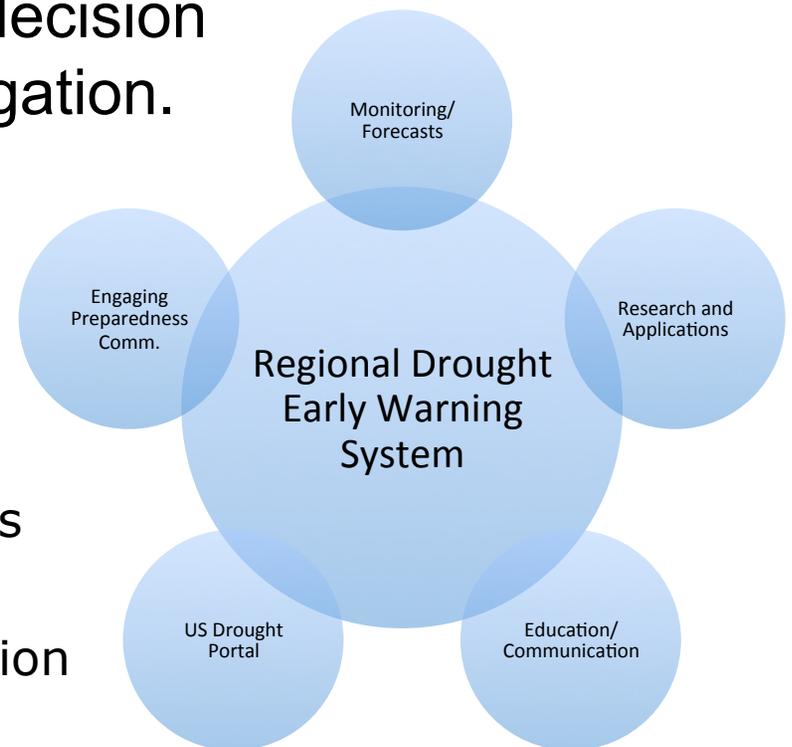
¹International Strategy for Disaster Reduction



Regional Drought Early Warning Systems (DEWS)

Working with communities and existing networks to build capacity for better decision making for drought planning and mitigation.

- Drought & risk assessments
- Climate outlook forums
- Education and outreach webinars
- Engaging the preparedness community
- Builds capacity to utilize existing products
 - Provide test beds for new products
- Develop new/utilize existing communication networks



Again....what is a Drought Early Warning System?

A DEWS utilizes **new and existing partner networks** to optimize the expertise of a wide range of federal, tribal, state, local and academic partners in order to **make climate and drought science and impact data readily available, easily understandable and usable for decision makers; and to improve the capacity of stakeholders and economic sectors to better monitor, forecast, plan for and cope with the impacts of drought at all spatial and time scales.**



UCRB/IMW DEWS Activities

- **Monitoring & Prediction**

- Upper Colorado River Basin Drought Assessments
- Colorado Water Availability Task Force
- Western Water Assessment Intermountain West Dashboard



- **Innovative Research, Applications & Assessments**

- Evaporative Demand Drought Index (EDDI)
- Water Resources Monitor & Outlook (WRMO)
- Testing the utility of highly-resolved spatial snow data



- **Engaging Preparedness & Adaptation Communities**

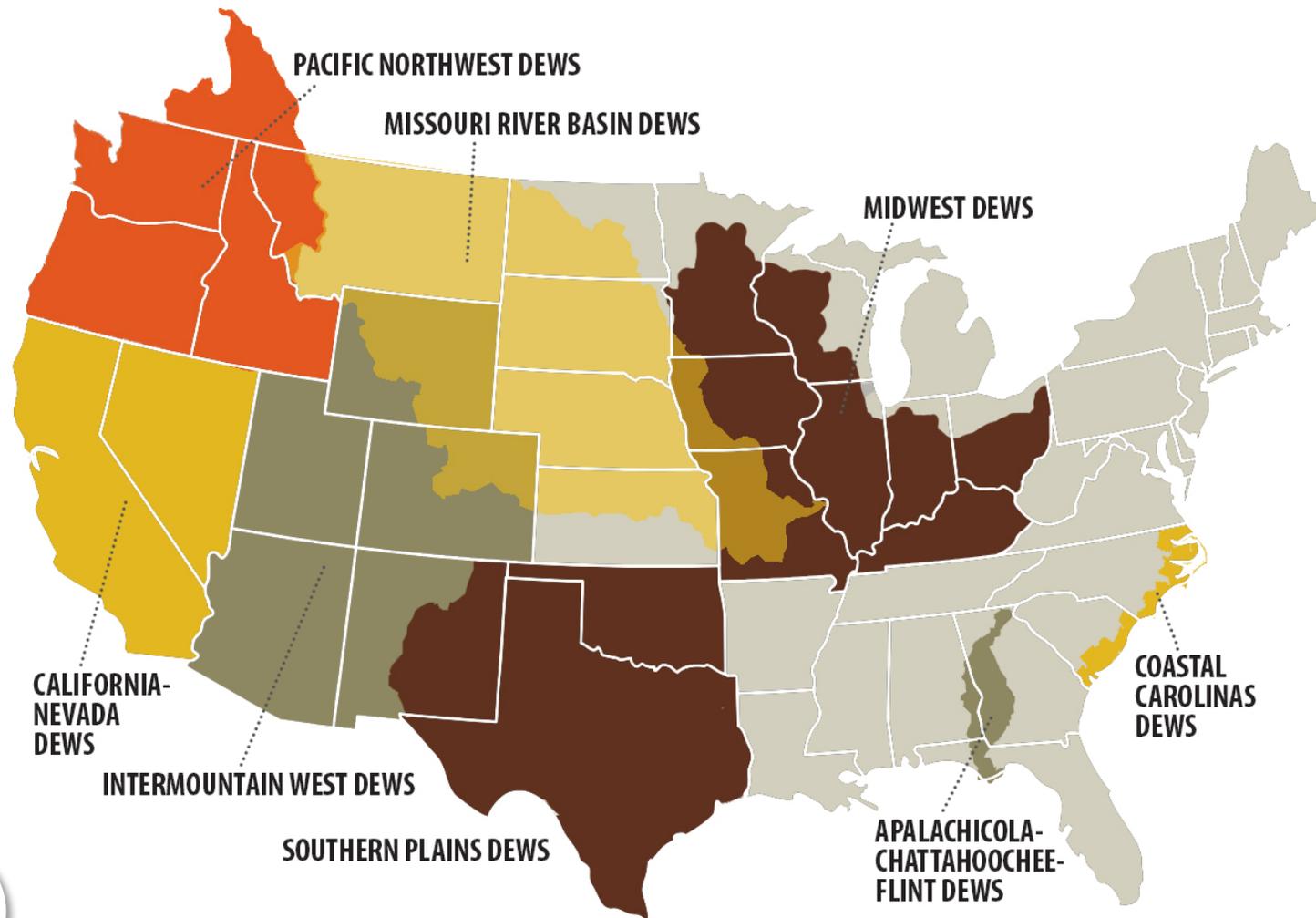
- WWA Snowpack Monitoring Workshops in CO, UT & WY (2015)
- Colorado Drought Tournament (2012)



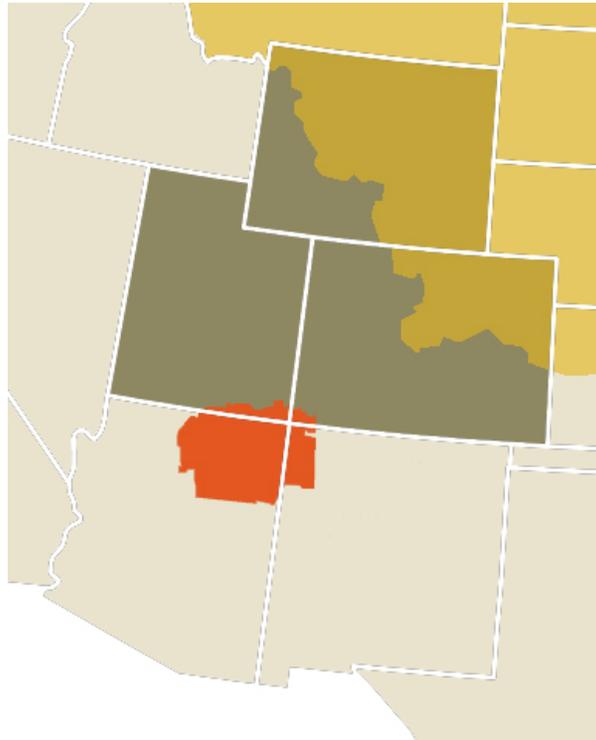
COLORADO
Colorado Water
Conservation Board
Department of Natural Resources



How did we get to the Intermountain West DEWS?



What were the boundaries Upper Colorado River Basin DEWS?



OR?



Newly expanded IMW DEWS



New DEWS = New Opportunities

First two years of a DEWS

Year 1

- Scoping the Drought Early Warning System
 - Gap analyses
 - What information exists?
 - How is it used?
 - Identify 2-3 critical issues
 - Characterize and communicate risks across timescales

Year 2

- Implementation of the DEWS
 - Consider seasonal, multi-year, longer term trends
 - Develop drought sub-portals
 - Embed information into preparedness & adaptation plans
 - Establish network for ongoing communication on impacts and projects



IMW DEWS Strategic Plan

- Roadmap for moving forward with the IMW DEWS
- Identify existing and new drought-related activities throughout the region
- Living document w/ 2-yr time frame
- Focus is on activities in the region
 - Not limited to NIDIS funded/led projects



IMW DEWS Strategic Plan

- NIDIS and Western Water Assessment are leading development of strategic plan in collaboration with the Colorado Climate Center, CLIMAS, CWCB and other regional partners

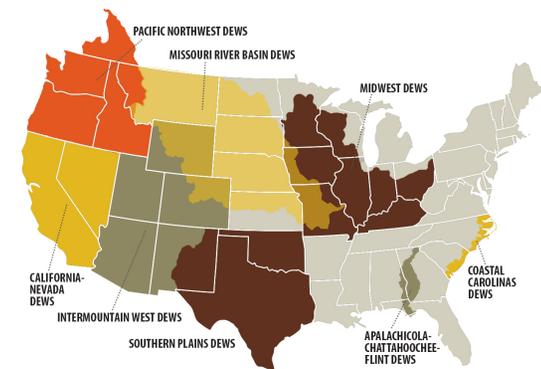
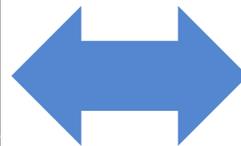
- NIDIS/NOAA funding opportunities
 - RISAs, NOAA Regional Climate Centers and Cooperative Institutes
 - SARP – Sectorial Application Research Program
 - MAPP – Modeling, Analysis, Predictions and Projections
 - Additional NIDIS investments within NOAA

- Partner agency/organization initiatives (may or may not include NIDIS funding)
 - USDA Climate Hubs (Northern Plains & Southwest)
 - DOI Climate Science Centers
 - Bureau of Reclamation
 - USGS
 - NRCS
 - NASA



Benefits of a DEWS Strategic Plan

- Fostering a regional network
- Collaboration and coordination
- Reference to help generate policy and governmental support
- Resource to assist with leveraging funds
- Foster sharing of activities and info within and across other DEWS



Contact Information

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