# Building Partnerships for Improved Climate Decision Making in the Southwest:

Two Recent Examples from the Climate
Assessment for the Southwest

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8th Annual Climate Prediction Applications Science Workshop





# And now for something completely different...







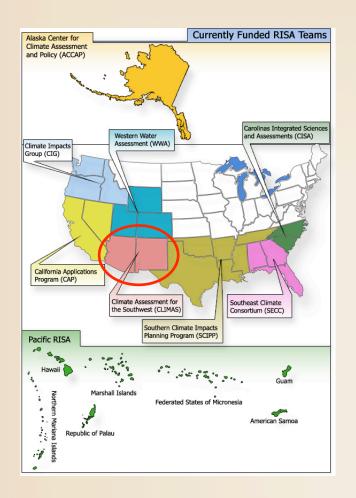
### Overview

- Emphasis on network perspective
- Focus on two recent examples of CLIMAS partnering with different kinds of organizations in our region.
- Lessons learned from these (and other) partnership experiences





# **About CLIMAS**



- Established in 1998 as the 2<sup>nd</sup> Regional Integrated Sciences and Assessments (RISA) program
- Explicit mission=connect science to decision making







# **Network perspective**

- CLIMAS exists within a large network of consumers and producers of climate information in the Southwest
  - on climate side includes RCC, SCs, other RISAs, RFC, WFOs, etc.
  - on consumer side includes local, state, tribal, federal agencies, NGOs, educators, etc, etc
- Best partnerships often leverage/utilize expertise across these networks

### Roles of the RCCs, RISAs and SCOs in Climate Services

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#### Regional Climate Centers

- Emphasis is ongoing delivery of climate services as a quasi operational activity
- Clientele covers all sectors of society, all 50 states and all 309 million citizens
- Emphasis on breadth of service with some areas of depth
   Relatively constant contact with a wide user base
- Maintain tools to be nimble enough to respond to climate related decisions that arise unexpectedly
- Longstanding interest in data, observations and monitoring
   Program existence not predicated on climate change

#### Regional Integrated Sciences and Assessment

- Primary emphasis is on research, primary method is "learning by doing"
- Concentrate on acquisition of knowledge about users and their decision environment, to inform experimental climate services and decision support
- Deliberate restriction to limited selected sectors at an one time, for learning purposes
- Geographic coverage is a subset of the natio clusters of states
- > Emphasis on depth more than breadth
- Seek to identify transferable findings (one sector or region to another)
- Strong orientation toward climate change issues

#### State Climate Offic

- Place-based service delivery; similar to RCCs, but with smaller geographic scope
- Familiarity with state/local issues, cultures, organization and data/information
- Well established program for six decades; provides root and strong ties to RCC Program
- Funding, host institutions, interests, capabilities backgrounds, history differ state to state
- > Presently 48 of 50 states (vacancies TN. RI)
- Ongoing complementary RCC-SCO activities provide a more uniform level of service
- Mutual involvement with RCCs, RISAs, national climat centers on common themes

#### Climate Services

The term "climate services" encompasses a suite of functions, capabilities and activities. These mainly include:

- Data and monitoring (measurement, maintenance, acquisition, quality control archivel access and distribution)
- Products (summary, manipulation, synthesi visualization, dissemination).
- Information delivery and interpretation interaction with users, and outreach
- Research (basic research on behavior of the physical climate system, applied research to meet specific user needs, and basic research

Needs for these services exist at national regional, state and local scales, and evolve with time. Mechanisms explicitly intended to mee! these needs in the U.S. have a well-established history dating to at least World Wer II.

The State Climatologists program was organized in the early 1950s within the Weather Bureau. After federal budget cuts, the existing offices in 1976 chartered the American Association of State Climatologists (AASC). By 2009 all but two of the 50 states had a <u>State Climate Office</u> (SCO). The <u>Regional Climate Center</u> (RCC) Program began in 1986 and serves six geographic regions. The NOAA <u>Regional Integrated Sciences and Assessments</u> (RISA) Program started in 1994 expanding to serve nine regions by 2009

Numerous additional players and organizations can and do contribute to climate services. The RCCs, RISAs and SCOs are working closely with each other to strengthen existing partnerships among themselves, and collaboratively with these many other service providers.





## Simplistic model of CLIMAS

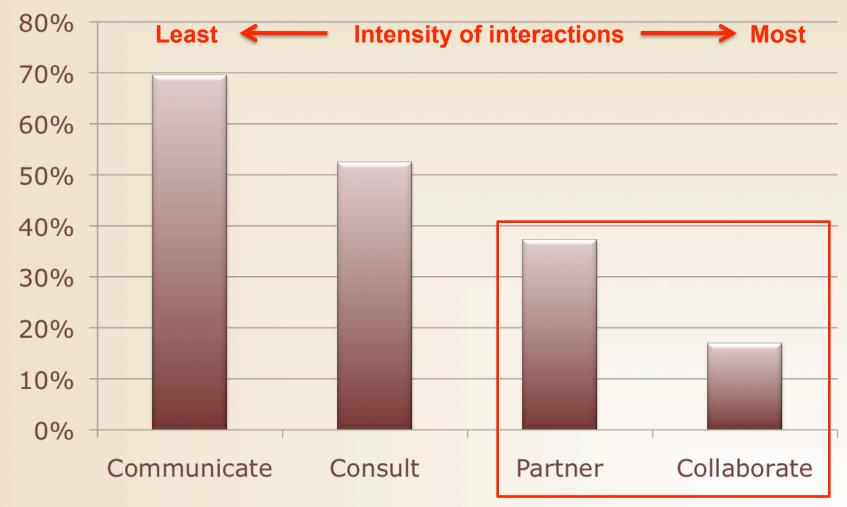
#### **CLIMAS** is:

- An information broker
  - Monthly climate summary, public talks, workshops, etc.
  - Longest reach of CLIMAS and provides consistent presence
- An informal consultant
  - specific advice, invited talks for small groups, someone to "bounce ideas off of"
- A partner
  - come together, perhaps just once, to address particular issue
- A collaborator
  - form lasting bonds for ongoing work
- A key element for fostering network growth and development
  - bring together potential partners who may share common vision, need, etc





# Relationship(s) with CLIMAS? (could select all that apply)





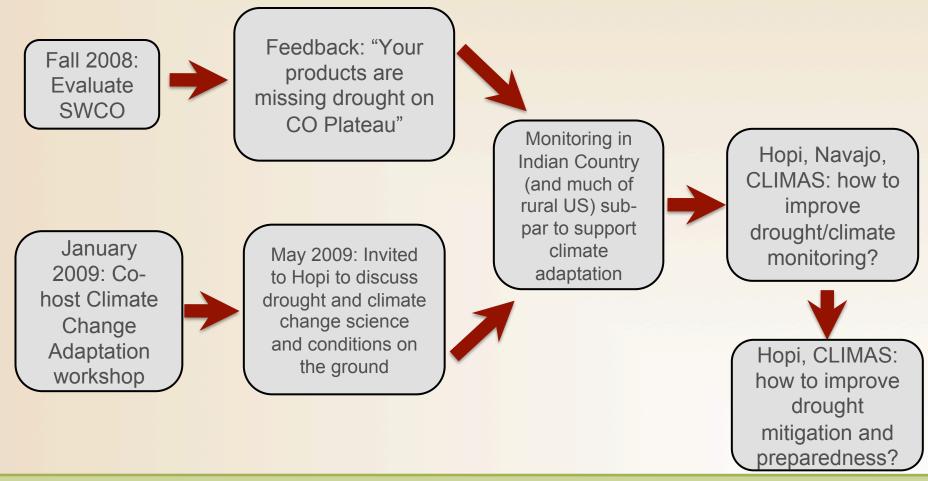


# Hopi Tribe: Improving drought monitoring and preparedness





# How did we get here?

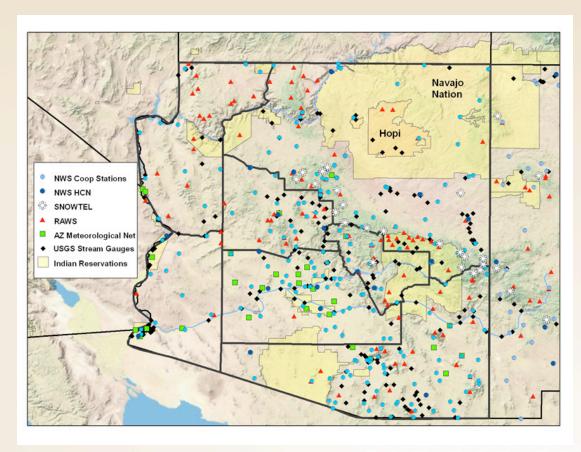






# What are we doing?

- Exploring ways to address large data gap on Colorado Plateau
- Preliminary discussions with Hopi natural resource managers (at their request) about revisiting Hopi drought plan to make it more useful



Map credit: Zack Guido, CLIMAS





# Colorado Basin River Forecast Center: Developing a Toolkit for User Engagement





# How did we get here?

- CBRFC and CLIMAS realize we have complementary capacities.

  http://lineout.thestranger.com/files/2007/06/IMG\_1592.JPG
- CLIMAS site visit to CBRFC

CBRFC: "This is how we make the donuts."



http://chris.tingom.com/photos/U.jpg



CLIMAS: "You know, we know a lot of people (some of whom eat donuts) and we know how to figure out what kinds of donuts they like."





# What are we doing?

- CLIMAS hosted a small focus group for the CBRFC to understand potential user interest in (and barriers to) utilizing new tools in development (gridded soil moisture and precip products)
  - CLIMAS produced a brief report summarizing results
  - CBRFC considered input in tool refinements
- Currently, working with CBRFC and the Western Water Assessment (interior west RISA) to develop a 'Toolkit for User Engagement' for RFC





# **Key lessons**

- Shared resources (human and \$) important
  - Commitment and follow-through much more likely if partners both have investment in success
- Shared (or at least complementary) goals necessary
  - Hopi: wanted better instrumentation to monitor drought (and as things evolved, they also wanted a better drought mitigation and response plan)
    - CLIMAS had same goals, but for different reasons
  - CBRFC: wanted better methods for developing tools and connecting them with users prior to completion
    - CLIMAS: had same goals (with different reasons), but also had our own, complementary goals (e.g., helping us better understand user needs/decisions)
- Partnerships forming (and succeeding) often predicated in participation in a robust, complex knowledge network





# Thank you

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