Phase 1 is underway with teams formed and two workshops completed. Team leaders for four resource areas received training in February. A second workshop tested the Phase 2 process of using the scenario narratives to evaluate adaptation options that managers could use at various stages over four decades, while considering longer-term implications. Upcoming team tasks are to identify management issues and to begin building their scenario narratives that combine key uncertainties related to climate and other forces of regional change.

Who is Involved in the Cienega Watershed Scenario Planning?
The Cienega Watershed is a basin bounded by the Whetstone Mountains to the east, the Santa Rita Mountains to the west, the Canelo Hills to the south, and the Rincon Mountains to the north. Upper elevations include oak and ponderosa pine forests while lower elevations are comprised of magnificent saguaros, desert scrub, rolling grasslands, oak-studded hills, and the lush riparian corridor along Cienega Creek. The watershed forms a vital wildlife corridor connecting the diverse ecosystems of the Sonoran and Chihuahuan deserts and grasslands with the Sierra Madrean and Rocky Mountain forests and woodlands. Our focal area extends outside the watershed to reflect ecological and community connections.

The watershed crosses multiple jurisdictions so the project involves federal, state and local agencies; non-profit organizations; and, stakeholders of interested public, academic, resident and other land users. Heavily involved are those partners who are already collaborating in several networks. For example, the technical teams convened by the Bureau of Land Management (BLM) for the Las Cienegas National Conservation Area (LCNCA) continue to share expertise in riparian, upland, heritage and landscape issues. Participants represent two stakeholder forums, the Sonoita Valley Planning Partnership and the Cienega Corridor Conservation Council.

Scenario Process Phase 1 Partners include:
- University of Arizona CLIMAS Center (Project Lead)
- Bureau of Land Management Tucson (BLM)
- Cienega Watershed Partnership (CWP)
- The Nature Conservancy (TNC)
- US Fish and Wildlife Service
- National Park Service, Saguaro National P.
- USDA Agricultural Research Service
- Pima Association of Governments
- Cuenca Los Ojos Foundation
- Pima County
- Natural Resources Conservation Service
- U. of Arizona School of Natural Resources
- US Forest Service, Coronado National Forest
- Audubon Appleton-Whittell Research Ranch
- Sky Island Alliance
- Southwest Decision Resources

The Phase 1 Teams
Participants include the Project Leads (the University of Arizona CLIMAS), the Steering Committee (BLM, CWP and TNC), and leaders and members of the resource area teams: Montane, Riparian, Upland and Cultural. Project Leads are responsible for project management, climate change expertise, leading workshops, and process standards. The Project Leads and the Steering Committee design workshop content, accumulate materials, communicate in all directions, assess the process and change components if needed, and recruit team leaders and
members. Co-team leads for each team help ensure continuity throughout the process. Teams average 7 to 10 members with some overlap; all include agency and public members. Some participants have multiple roles.

Steps completed: Training leaders and key participants
On February 25, 12 individuals completed a one-day session to prepare team leaders to develop, with their teams, management-relevant scenario narratives that incorporate climate change and other key external forces. The training focused on: identifying management issues, understanding drivers and impacts, developing scenario narratives. We used a case study centered on coastal issues for this training session, to ensure discussions would not bias the upcoming team efforts.

Steps completed: The Fast Track Exercise
This step gave a preview of Phase 2: applying scenario narratives (being developed in Phase 1) to solve on-the-ground management issues. To vet and improve the process that will be used with the whole group later, 12 riparian specialists and facilitators applied preliminary regional climate narratives to floodplain management issues such as sustaining sacaton riparian grasslands and providing aquifer recharge and flood protection. Three teams used very different but plausible scenarios for regional climatic change, policy flexibility, and availability of resources to develop adaption options that future managers might apply under each scenario between 10 and 100 years into the future.

What are the next steps in Phase 1?
- Based on feedback from the February 25 Training Workshop, we will be conducting a day-long workshop in April with all four resource teams (Montane, Riparian, Upland and Cultural) where each team will develop rudimentary scenario narratives. The format will be very similar to the Training Workshop, except this time teams will be applying this process to Cienega Watershed issues.
- In the month following this workshop, we will assist each team, on a team-by-team basis, in refining and expanding these basic narratives into more detailed forms.
- In mid-May all four resource teams will re-convene once more to vet scenarios, including identification of any cross-resource issues.
- And finally, on June 8, we will be reporting our Scenario Planning efforts to additional stakeholders at the annual Science on the Sonoita Plain.

Evaluating and Integrating the Scenario Planning Process
The Cienega Watershed Scenario Planning has been developed around a 20-step process that has been used in many other locations. We are evaluating what steps might be simplified to ensure the process is efficient enough to routinely apply at the local level with limited time and resources, and especially how to integrate results with other planning efforts. This approach is quite different from developing predictions using regional scale climatic models with currently acceptable variables in temperature, humidity etc. To this end, we are in active dialogue with the current BLM Rapid Ecological Assessment efforts, especially the Madrean and Sonoran REAs, to understand how two efforts can be integrated and how Scenario Planning can capitalize on these assessments.

Questions? To participate in workshops or for information, please email or call: Shela McFarlin, Cienega Watershed Partnership, 520-548-9459 outreach@cienega.org; Gita Bodner, The Nature Conservancy, 520-545-0178 gbotner@tnrc.org; Amy Markstein, Bureau of Land Management Tucson, 520-258-7231 amarkstein@blm.gov; Dr. Holly C. Hartmann, Arid Lands Information Center, University of Arizona, hollyoregon@juno.com; Kiyomi Morino, The Laboratory of Tree-Ring Research, kmorino@LTRR.arizona.edu