

**PLANNED WORKSHOP:**  
**Natural Resource needs Related to Climate Change in the Great Basin and Mojave Desert: Research, Adaptation, Mitigation**

**Purpose of Workshop:** The planned workshop will focus on how climate change is affecting natural resources in deserts of the western U.S., as well as the land, water, and species management and research needs that are essential to address in the coming decade. Workshop objectives include:

- Increase understanding of climate change processes and their effects on the physical systems and biota of the Great Basin and Mojave Desert
- Provide the “best available” scientific information for adapting to change
- Examine research and management needs
- Evaluate management constraints and determine potential solutions
- Develop effective research and management collaborations for addressing climate change into the future

**Participants:** Stakeholders in the natural resources management and research communities with interest and expertise in the potential effects of climate change on the aridlands of western North America. The intended audience includes federal, state, tribal, and local government land and resource management agencies; federal, state and local government officials; federal, state, university, and non-governmental researchers; and other partners of interest.

**Draft Workshop Agenda:**

- Overview: Climate change drivers affecting the interior West; synthesis presentations about natural resource responses to climate change and associated mitigation and adaptation options
- Current research and information needs: Will not only consider “best available scientific information,” but will also provide different perspectives on future research emphases and management information needs
- Tools: Data, analyses, models, and conservation planning related to species, habitats, and conservation areas, in addition to socioeconomic drivers of change in the arid West; existing and new possibilities for improved coordination
- Strategies and Actions: An examination of existing efforts: What networks and organizations exist or need to be formed to mitigate and adapt to ecosystem changes driven by a changing climate?

**Format and Issues:** General sessions will be integrated with breakout sessions and reporting back. Stakeholder input is being sought on topics and organizing concepts for these sessions. Given the number of symposia on aridland climate change that have been held, it is important that this workshop not merely be scripted with scientists speaking “at” managers. Rather, a key objective will be to catalyze dialogue about scientific and management strategies that can be initiated now to have positive effects on outcomes in the future. As a possible mechanism for accomplishing this, it has been suggested that management leaders provide the initial, plenary talks on their strategies, plans and needs for climate change acclimation and mitigation.

Potential subtopics include climate change mitigation, adaptation, and research needs related to:

- Observed trends and model predictions of predicted effects, including uncertainty and variability in:
  - Precipitation, runoff and their effects on aquatic, wetland, and riparian ecosystems and biota
  - Soils, vegetation, fire, and invasive species interactions in rangeland ecosystems
- Adjusting conservation strategies for protected species and lands in a changing environment: shifting distributions with fixed unit boundaries, maintenance of habitat connectivity, loss of patches (at high elevations, valley bottoms, and in isolated aquatic systems)
- Monitoring to support large-scale, cross-boundary prioritization for adaptive management in a variable and uncertain environment
- Restoration objectives, feasibility and strategies given environmental change, biogeographic limitations, and uncertainty
- Data collection networks, information management to support analyses and modeling
- Overlay of climate change with land use water management in an ecosystem services context

**Desired outcomes and products:**

- Information exchange among participants
- Establishing and using interorganizational work groups to explore:
  - Research and scientific assessments, tools and priorities
  - Management adaptation and mitigation strategies
- Refine information needs related to agency needs and interorganizational collaboratives
- Products such as a peer-reviewed publication, internet presence, video archive, or all of the above

**Organizational Involvement:** As part of a series of climate change workshops, the USGS and FWS initiated planning for the workshop. The workshop planning team will seek the involvement of a broad array of experts and entities to co-sponsor the workshop, participate, and help provide speakers or other resources. Organizations currently participating in workshop planning include NPS, EPA, FS, BLM, and DRI. An ongoing dialogue about the workshop is broadening communication via the Great Basin Research and Management Partnership, Desert Managers Group, and Mojave Inventory and Monitoring Network.