



June 2, 2014

To: Management Team Co-Chairs
National Fish, Wildlife, & Plants Climate Adaptation Strategy

From: Armand Gonzales, Chair - Desert Landscape Conservation Cooperative

Subject: Desert LCC role in Climate Adaptation Strategy

This letter is in response to your communication dated June 6, 2013, regarding the *National Fish, Wildlife, & Plants Climate Adaptation Strategy (Strategy)* and the potential role the Desert Landscape Conservation Cooperative (LCC) might provide in the Strategy's successful implementation.

The Desert LCC Steering Committee met in September 2013 and had the opportunity to review the *Strategy* and its possible connections to Desert LCC activities. During this discussion, the Steering Committee agreed to report on alignments between the *Strategy* and the current activities of the Desert LCC and to refer to the Strategy in the deliberation of future activities.

The Desert LCC's mission is to provide scientific and technical support, coordination, and communication to resource managers and the broader Desert LCC community to address climate change and other landscape-scale ecosystem stressors.

The goals of the Desert LCC are:

1. Science Development and Delivery - Identify science needs of LCC partners related to climate change and ecosystem stressors at broad spatial scales, and facilitate the development, integration and application of scientific information (including decision support systems) that will inform resource management decisions.
2. Collaboration and Communication - Promote and facilitate collaboration and communication among conservation partnerships and entities to support and add value to their efforts to respond to climate change and other stressors and to integrate scientific information into resource management plans and conservation projects.
3. Monitoring and Evaluation - Provide expertise and opportunities to enhance and add value to climate change and other monitoring programs of various partners through such activities as coordinated data collection, data analysis and information management, and data dissemination, when such actions are mutually agreed to by the partners involved.



4. Outreach and Education - Provide information and application tools that educate and apprise resource managers and the public about the effects of climate change and ecosystem stressors.

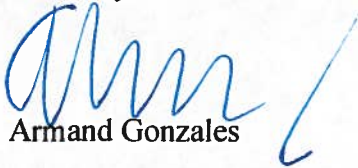
The Desert LCC has also identified common critical management questions, which we will address with our partners over the next 1-5 years. These focal areas include:

- Water management, aquatic ecosystem conservation, and climate change
- Monitoring ecological processes and species to understand the effects of climate change and adaptation actions
- Grassland restoration and sustainable management
- Physiological stress of climate change on species
- Changing wildfire regimes and riparian ecosystem management
- Sensitivity of amphibians and reptiles to climate change

The *Strategy* intersects with the mission, goals, and project portfolio of the Desert LCC in multiple ways. It is important to note that the Desert LCC cannot respond to *Strategy* goals that entail the undertaking of actual land-management actions because such activities are beyond the scope of the Desert LCC, which is a non-regulatory entity without land- or resource-management authority. However, as a science partnership, actions and strategies that intersect with the Desert LCC's mission and goals will be strongly considered and integrated into our annual planning processes.

The Desert LCC Steering Committee would like to commend the efforts of the *Strategy* Steering Committee and the Management Team for developing an outline that can guide collaborative conservation efforts and which recognizes the need for many conservation partners at different geographical scales. We have attached a summary which highlights how the Desert LCC's current activities relate to sections of the Strategy. We see the Strategy as an excellent framework for coordinating climate adaptation actions among our partners as feasibility and capacity allow.

Sincerely,



Armand Gonzales

California Department of Fish and Wildlife
Chair, Desert Landscape Conservation Cooperative



National Fish, Wildlife & Plants Climate Adaptation Strategies	Desert LCC Activities
<p>Strategy 1.1: Identify areas for an ecologically-connected network of terrestrial, freshwater, coastal, and marine conservation areas that are likely to be resilient to climate change and to support a broad range of fish, wildlife, and plants under changed conditions.</p>	<p>Related work is currently underway through Western Governors Association development of Crucial Habitat Assessment Tool (CHAT). Desert LCC is supporting several projects that increase the capability of CHAT and that incorporate climate vulnerability analysis. In addition, the Desert LCC works to increase awareness of existing tools, knowledge, and collaborative efforts that support these activities. More information about our science projects can be found on our website - www.usbr.gov/desertlcc.</p>
<p>Strategy 1.3: Restore habitat features where necessary and practicable to maintain ecosystem function and resiliency to climate change.</p>	<p>The Desert LCC is addressing Critical Management Questions with our partners. Critical Management Question 3: Grassland Restoration and Sustainable Management looks at identifying available tools and additional information needed to make decisions that promote ecosystem resilience and facilitate adaptation under climate change. The LCC is acting as a forum for discussion on these topics to inform priority actions, protocols, and techniques.</p>
<p>Strategy 1.4: Conserve, restore, and as appropriate and practicable, establish new ecological connections among conservation areas to facilitate fish, wildlife, and plant migration, range shifts, and other transitions caused by climate change.</p>	<p>Strategy 1.4 builds on current efforts underway by addressing Critical Management Questions related to this topic. Although many of the activities listed under this strategy are outside the capacity of the LCC to implement, the LCC informs conservation and restoration actions with applied science projects and by providing a forum for dialogue and problem-solving.</p>
<p>Strategy 2.1: Update current or develop new species, habitat, and land and water management plans, programs and practices to consider climate change and support adaptation.</p>	<p>The Desert LCC is producing science and tools regarding climate change impacts that can be incorporated into partners' management plans where applicable. More information about our science projects can be found on our website - www.usbr.gov/desertlcc.</p> <p>We are in the process of strategic planning, which includes compiling or synthesizing</p>



	<p>information about partners’ planning efforts, common conservation targets and desired outcomes and how the Desert LCC science can support those outcomes (Annual Work Plan, Task 3.0, actions 3.1 and 3.2). In addition, many of our Critical Management Questions are related to specific actions listed in this strategy.</p>
<p>Strategy 2.2: Develop and apply species-specific management approaches to address critical climate change impacts where necessary.</p>	<p>The Desert LCC has identified the need to synthesize information from vulnerability assessment efforts completed by our partners (e.g., Reclamation, USFS, USFWS, and BLM) including NatureServe's vulnerability assessment(s) of plant communities and ecosystems in the Mojave and Sonoran Deserts as a basis (Annual work plan, task 6.0).</p>
<p>Strategy 3.1: Increase the climate change awareness and capacity of natural resource managers and other decision makers and enhance their professional abilities to design, implement, and evaluate fish, wildlife, and plant adaptation programs.</p>	<p>The Desert LCC is comprised of Steering Committee, Science Working Group, and Critical Management Questions team members from states, federal, international, non-profit, and university organizations working together on a monthly basis to prioritize climate-related issues, share information, and produce processes and products that can inform decision-making related to resource management in a changing climate.</p> <p>We have prioritized science needs to include climate change awareness, choosing 6 critical management questions that reflect pressing management concerns. We are focused on linking science needs and delivery with on-the-ground conservation objectives with the intent of adding value to existing efforts and establishing a process for inventorying best-available science, data, and tools (Annual work plan, tasks 1.0 and 4.0). The Desert LCC has developed funding opportunities to fund partner work related to climate change and our areas of critical concern. More information about our science projects can be found on our website - www.usbr.gov/desertlcc.</p> <p>The Desert LCC has also partnered with the National Conservation Training Center to bring</p>



	<p>training on Climate-Smart Conservation to our partners.</p>
<p>Strategy 3.2: Facilitate a coordinated response to climate change at landscape, regional, national, and international scales across state, federal, and tribal natural resource agencies and private conservation organizations.</p>	<p>The Desert LCC includes a Mexico Working Group that is strategically working to engage our international neighbor and identify tasks the group can accomplish to meet goals and strategic actions (Annual work plan, task 13.0).</p>
<p>Strategy 4.1: Support, coordinate, and where necessary develop distributed but integrated inventory, monitoring, observation, and information systems at multiple scales to detect and describe climate impacts on fish, wildlife, plants, and ecosystems.</p>	<p>The Desert LCC is in the process of synthesizing information related to our Critical Management Questions, including: compiling a list of existing monitoring protocols and/or information (Annual work plan, task 19.1); synthesizing existing information and identifying knowledge gaps (Annual work plan, task 19.2); and creating a crosswalk between questions, gaps, and existing monitoring programs (Annual work plan, task 19.3). Related data, such as funded project reports and GIS data, will be available through our Conservation Planning Atlas.</p>
<p>Strategy 5.1: Identify knowledge gaps and define research priorities via a collaborative process among federal, state, tribal, private conservation organization, and academic resource managers and research scientists.</p> <p>Strategy 5.2: Conduct research into ecological aspects of climate change, including likely impacts and the adaptive capacity of species, communities and ecosystems, and their associated ecosystem services, working through existing partnerships or new collaborations as needed (e.g., USGCRP, NCA, CSCs, RISAs, and others).</p>	<p>The Desert LCC is focused on linking science needs/delivery with on-the-ground conservation objectives with the intent of adding value to existing efforts (Annual work plan, task 1.0). Our Steering Committee and working groups are comprised of agencies and organizations with scientific assets and expertise, side by side with managers. These relationships contribute to regional dialogues about actions needed to meet management-driven science needs and the regional research agendas for the Desert LCC. Funding for applied science and decision support tools is provided to non-governmental and governmental organizations conducting work within the geography of the Desert LCC. In addition, we inform the science planning efforts and RFP processes of South Central and Southwest Climate Science Centers (CSC) and use information from CSCs to further inform LCC efforts. (Annual work plan, task 2.0).</p>
<p>Strategy 5.3: Advance understanding of</p>	<p>Regional research agendas for the Desert LCC</p>



<p>climate change impacts and species and ecosystem responses through modeling.</p>	<p>are guided by priority needs of our partners. Funding for applied science and decision support tools is provided to non-governmental and governmental organizations conducting work within the geography of the Desert LCC. This includes development of models for vulnerable species, such as Southwestern willow flycatcher.</p> <p>More information about our science projects can be found on our website - www.usbr.gov/desertlcc.</p>
<p>Strategy 6.1: Increase public awareness and understanding of climate impacts to natural resources and ecosystem services and the principles of climate adaptation at regionally- and culturally-appropriate scales.</p> <p>Strategy 6.2: Engage the public through targeted education and outreach efforts and stewardship opportunities.</p>	<p>The Desert LCC has developed core messaging and has an annual work plan and communications plan that guides our actions. The Desert LCC is also creating a user-friendly website for outreach and education purposes (Annual work plan, task 21.0). We have developed a Local Governments Working Group to increase communications with interested local governments. As materials and products for the LCC are developed, we will update materials that can be customized by any organization to convey key information (Desert LCC Communications Plan, Task 6, Action A) and develop stories on key developments in the landscape (e.g., places where changes or accomplishments are occurring) to promote awareness that may prompt science needs or conservation actions (Desert LCC Communications Plan, Task 8, Action A).</p>
<p>Strategy 6.3: Coordinate climate change communication efforts across jurisdictions.</p>	<p>The Desert LCC is comprised of Steering Committee, Science Working Group, and Critical Management Questions from states, federal, international, non-profit, and university organizations working together on a monthly basis to prioritize climate-related issues, share information, and produce processes and products that can inform decision-making. The Desert LCC is exploring solutions to tools that promote collaboration and information exchange across jurisdictions.</p>
<p>Strategy 7.2: Slow, mitigate, and reverse where</p>	<p>Although many of the activities for Strategy</p>



<p>feasible ecosystem degradation from anthropogenic sources through land/ocean- use planning, water resource planning, pollution abatement, and the implementation of best management practices.</p>	<p>7.2 are outside the scope of the Desert LCC, we have identified the need to compile information about partners' existing planning efforts to identify common conservation goals and desired outcomes that support future strategic planning for the Desert LCC (Annual work plan, task 3.1).</p> <p>The Desert LCC is also focusing on the following issues as part of addressing Critical Management Question 1: What are successful strategies and methodologies for evaluating and implementing recommendations for environmental flows and associated water levels? How can managers effectively integrate information into these recommendations about hydrologic responses to climate change and the influence of this on ecosystems and species? What are viable management options to increase resiliency of ecosystems and species and help them adapt to climate change? Information and tools produced as a result of this question can aid managers in planning for water resources in a changing climate.</p>
---	---

