

Desert Landscape Conservation Cooperative Outreach Meeting
US Geological Survey Office
San Bernardino, CA
August 19, 2010

This meeting, co-hosted by US Fish and Wildlife Service and the Bureau of Reclamation, brought together participants from a range of federal and state agencies, academic and scientific institutions, and NGOs, to introduce the concept of Landscape Conservation Cooperatives (LCCs), and discuss both the direction and potential structure for the Desert LCC. Specifically, meeting objectives included:

1. Provide information on LCCs in general and specifically in the Desert LCC.
2. Determine agency and stakeholder interest in participating in Desert LCC and identify other potential partners.
3. Provide an overview of existing regional, state and local partnerships that link science and management and discuss how Desert LCC can build on and work with these partnerships.
4. Expand existing scoping committee (or other mechanism) to include other partners and to help guide future actions taken to organize and develop a charter for the LCC.
5. Initiate identification of landscape-scale research and science needs.

For a complete list of meeting participants, please see Appendix 1.

Presentations from this meeting are available at <http://www.usbr.gov/WaterSMART/lcc.html>.

Welcome and Introductions

Dave Raff (USBR) welcomed participants and noted that the Desert LCC is being co-hosted by USBR and USFWS. Jeanne Wade-Evans (USFS) provided background on the facility (the Interagency Training Center). Ed Moreno (Facilitator, The Keystone Center) reviewed the agenda and asked participants to introduce themselves.

Landscape Conservation Cooperatives (LCC) and Existing Approaches to Their Development (Presentation by Rick Kearney, USFWS)

- Rapid climate change is overwhelming the ability of natural systems to respond effectively. We are looking to help adapt to these rapidly changing environments. In the Desert Southwest, the greatest effect is on the water regime, which will have ecological consequences. Other landscape scale changes include habitat loss, invasive species, and wildlife disease.
- We do things very well at the project scale/local level. A more strategic view looking at broad landscape scales is needed, and collaboration is needed across organizations and interests.
- Department of Interior's plan to respond includes the creation of new science and management capability through Climate Science Centers (CSCs) and LCCs.
 - CSCs are university-based, regional science centers/science providers. Each will have a stakeholder council involved in setting the science agenda. They are intended to provide tools to resource managers and decision makers.
 - USGS is the lead for the Climate Science Centers. It has issued nationwide RFPs this year to select the centers.
 - LCCs are intended to provide science support for management agencies. They are based on eco-regions and are intended to address climate change and other stressors. The Desert

- LCC crosses multiple state lines and involves multiple groups addressing common interests.
 - CSCs will focus on research activity and acquisition of new data; LCCs will focus on application. Much will fall in the middle.
- Each of the 8 regional USFWS offices was asked to create an LCC. In 2011, resources will go to other agencies to help create other partnerships. The areas are well described but they are not borders and boundaries intended to inhibit discussion and collaborations involving multiple partners over wider areas. What we create in the Desert will be shared with the Great Basin and California LCCs and other partnerships across the country and we will learn from them as well.
- What benefits does an LCC provide? Partners have the opportunities to access science from others, understand what others are doing and leverage what you and others are doing with funding data, and expertise, or bring activities together to apply science.
- LCCs are not:
 - Conservation funding agencies (management efforts are still the responsibility of the agencies and other groups).
 - Replacements for existing organizations, groups, or partnerships. LCCs are meant to facilitate communication. They are not a tent overarching existing partnerships but instead a net supporting existing partnerships (with funding, expertise, etc.).
 - Regulatory in nature (not intended to establish new rules).
- Products of LCCs include science-based decision support tools, vulnerability assessments, landscape-scale conservation plans, biological and geospatial databases, and others as determined by LCC partners.
- LCC key components include:
 - Steering committee to provide leadership and guidance, involving members who can represent their organizations and commit resources (data, funding, capabilities, personnel).
 - Full time LCC coordinator –within existing LCCs, USFWS has provided funding and in some cases the person to fill that role; sometimes they are employees of another agency and sometimes a private individual.
 - Science coordinator – hosting agency has looked at providing resources for that, sometimes management agency has stepped forward to do this.
 - Planning and technical staff, GIS, communications.
- Established LCCs have different structures. For example,
 - In the Great Plains, the Playa Lakes Joint Venture expanded its scope beyond birds to become the LCC.
 - The California LCC has focused first on areas with existing partnerships and has hired a facilitator.
 - The Great Northern LCC established 3 geographic eco-forums.
- The Desert LCC includes CA, NV, AZ, NM, and Texas and extends south into Mexico; the LCC will start first within the US and then will engage partners in Mexico (USFWS has many partners in Mexico).
- Timeline: Outreach and scoping activities in August-December 2010; Steering Committee Formed in January 2011.
 - Scoping activities include identifying science needs, resource priorities, and groups to engage.
- Next steps:
 - Asking organizations to have internal conversations about who might be the best person(s) to represent them on the Scoping Committee.

- This is the second of 5 meetings; others include Henderson, NV (August 17), Tucson (September 20-21), Alpine, TX (September 23) and Las Vegas (TBD, to coincide with a meeting of the Colorado Basin States).
- FWS Science Coordinator: a hiring process is underway.

Questions, Comments, and Discussion

- What is the role of USBR and USFWS in standing up the LCC?
 - We're hosting it. We've been asked to set the table and invite everyone in. We will not sit at the head, but will be around the table with you, promoting discussions and bringing in facilitators. USBR is providing funding but the hope is that all will contribute in some way.
- How are LCCs different from the Cooperative Ecosystem Studies Units National Network (CESU)? Many agencies belong to them.
 - LCCs are a collaborative mechanism that is not meant to replace CESU but utilize it. There are likely to be other things that CESU doesn't have the capacity to contribute.
 - CESU has MOUs signed by agencies and universities to establish lower overhead rates to facilitate funding of science. LCCs can provide opportunities for those not party to the MOU, and can identify science needs and priorities for CESU and universities to develop.
- I am concerned that federal participants have limited capacity to send people to meetings; are we spreading people too thin?
 - This is a real concern; let's table it for later discussion today.
- Dave Busch, USGS, discussed the collaborative role of CSCs in engaging USGS, universities, USFS, NOAA, NPS, USBR. The mission of the CSCs has been broadened to incorporate all DOI missions.
- What is "too big" for a scoping committee?
 - There is not a number; we want to make sure the full range of interests are represented, and not over-weighted by one agency.

Existing Partnerships and Their Role in the Desert LCC (Multiple Presenters, Listed Below)

Southern Nevada Agency Partnership (Russ Schofield, BLM)

- Includes BLM, USFS, USFWS, and NPS with a chartered framework for over 7 m acres.
- Geographic scope is Southern Nevada including portions of Lake Mead.
- Legacy statement: Work with each other, our communities, and our partners to conserve and enhance the Federal Lands of Southern Nevada for current and future generations.
- The Science and Research team's mission is "to provide clear understanding of the health and trends of the southern Nevada ecosystem for uniform, informed management decisions regarding natural resources, cultural resources, and human use of public lands.:
- SNAP has worked for over 3 years through a facilitated process to develop a science and research strategy with 3 goals and multiple subgoals including resource topic areas (fire, invasives, biodiversity, watersheds, cultural resources, historic context, recreation, land use, education).
 - Climate is incorporated into the topics.
- SNAP conducts an annual needs assessment.
- USGS and the USFS Rocky Mountain Research station are developing a science synthesis related to the 9 resource topic areas.

Coachella Valley Multiple Species Habitat Conservation Plan (Cam Barrows, UC Riverside)

- Palm Springs area.
- Will protect 740,000 acres, 27 covered species, and 27 natural communities.

- Includes Coachella Valley Association of Governments (includes 9 counties and the city of Riverside) BLM, NPS, state parks, USFWS, USFS, Fish and Game, and various water districts.
- The Coachella Valley Conservation Commission administers the plan and has delegated other tasks. Land acquisition and land management falls to the state land agency.
- Science is provided through ICEA Consulting and UC Riverside Center for Conservation Biology.
- With all of the dollars in monitoring and management spent over multiple decades, little has been very effective. We want to make sure this doesn't happen.
- There are 3 program areas to inform management: invasive species, habitat fragmentation, and climate change.

Desert Managers Group (Russ Schofield, BLM)

- Vision: “Working together to conserve and enhance the California deserts for current and future generations.”
- Includes the California desert with the exception of Great Basin. 25 million acres of desert, including 3 NPS units, 10 state parks, 72 congressionally designated BLM wilderness areas, BLM desert conservation areas, and military bases.
- Mission includes:
 - Develop coordinated and complementary management practices and programs.
 - Develop and integrate the databases and scientific studies needed for effective resource management and planning.
 - Promote compatibility in the application of each agency's mission.
- DMG was formed as part of the CA Desert Protection of Act 1994, chartered in 2000, and rechartered in 2005. It does not invoke FACA as it is not asking stakeholders to reach consensus.
- Mojave Desert Ecosystem is the digital arm of DMG and manages a variety of DMG websites.

Lower Colorado Multi-Species Conservation Program (Dave Raff, USBR)

- MSCP is Lower Colorado River focused (below Glen Canyon Dam).
- The Lower MSCP is a multi-stakeholder federal and non-federal partnership. USBR is the lead implementing agency; MSCP has a 56-entity steering committee including Federal Agencies, Cities and Municipalities, States, Ag, Water, Power, Tribes, and NGOs.
- It is an ESA compliance program.
- Goals: 1) Conserve habitat and work toward recovery of T&E species as well as reduce the likelihood of additional species being listed, 2) Accommodate present water diversions and power production and optimize opportunities for future water and power development, and 3) Provide the basis for incidental take authorizations.
- It is intended to be a 50 year ESA and CESA compliance program.
- The intended budget is ~\$650 million.

Mojave Desert Initiative (Russ Schofield, BLM)

- Formed in 2007 to respond to catastrophic wildfires that occurred in 2006.
- Primarily focuses on Northern and Eastern Mojave. MDI coordinates with DMG.
- Goals:
 - Protect Remaining Unburned Mojave Desert Vegetation and Reduce Re-burning.
 - Restore Strategically Located Islands, Key Habitat Areas, and Corridors.
 - Improve Communication, Collaboration, and Coordination.
 - Maximize Leveraged Funding.
- Goals:
 - Protect Remaining Unburned Mojave Desert Vegetation and Reduce Re-burning.

- Restore Strategically Located Islands, Key Habitat Areas, and Corridors.
- Improve Communication, Collaboration, and Coordination.
- Maximize Leveraged Funding.
- Initial actions:
 - Develop regional guidance for Incident Commanders to minimize or avoid further habitat loss to fire (applies to entire Mojave not just the NE region). Re-issued annually.
 - Complete regional assessment to identify priority areas of work, and develop project ranking and selection criteria.
 - Assessment updated as needed to include new information, reflect changes in conditions, etc.
- Regional Assessment:
 - Geospatial component includes overlays of burned and unburned habitats, critical habitat, special designations, etc. resulting in priority protection and restoration areas.
 - Protection areas focus on unburned desert tortoise and other listed species habitats.
 - Restoration areas focus on establishing strategically located islands and corridors connecting intact habitats.
 - Maintaining or establishing corridors is key for plants and animals to adapt to changing climate.
- Implementation:
 - Identify, prioritize, and develop projects across the MDI eco-region.
 - Projects include fuel breaks and green stripping to protect unburned areas, seeding and plantings to establish islands and corridors.
 - A number of projects are currently being planned and implemented across the region.
 - Major new project just underway with USGS/ARS will establish a regional system of plots to test plant materials that are competitive with invasive annuals.

Discussion

Participants brainstormed additional ongoing partnerships for resource management/science identification and development within the region (see Appendix 2).

Science and Research Needs (Dave Raff, USBR)

- The interim scoping committee established a science committee (to be continued at the discretion of the formal Steering Committee) to identify shared science needs in order to ensure that the LCC is funding work that is relevant to management needs and supports landscape conservation goals and leverage funding for common needs.
 - USBR has FY2010 money to develop science products; there is more in the President's budget in FY2011.
- Process:
 - Start with documents from current partnerships and published literature.
 - Many have already done work to establish needs; we are mapping different documents to look at the overlap.
 - Outreach meetings (this one today).
 - Desert LCC science needs assessment web site (late August).
 - Synthesize and distribute results back to stakeholders and public.
 - Develop a foundation for science plan and RFPs.
- Scope:
 - Focus on impacts and interactions of climate change.
 - Processes and impacts across large landscapes.
 - DOI Sec Order 3289 identified the need for landscape-level coordination.
 - All biota, human environment, cultural resources, ecosystem services.

- Examples of topics from existing documents and existing programs were provided.

Discussion

- Has the RFP process been worked through? How would you evaluate the proposals that are received?
 - There is no Steering Committee yet to determine this. In FY2010, we will take the science needs and target the RFP to them. There are FAR (Federal Acquisition Regulations) regarding how we create a review committee.
- The CESU model allows lower overhead charges so more funding is going to actual research.
 - If a university is part of CESU, it can still utilize CESU to do the project under an LCC RFP.

Participants participated in a flip chart exercise to identify needs under the following categories: water, ecosystems, wildlife populations, wildlife habitat, human environment, threats, decision support tools, monitoring needs, and needs for infrastructure/training, and soils (see Appendix 3). The data from the flip charts, along with that from the registration questions, will get compiled to 1) inform the initial RFP, 2) show the Steering Committee something it can do, and 3) look for themes across different areas and gather additional feedback.

Organizing the LCC Steering Committee

Who should be on it?

- Organizations with some sort of statutory obligations, e.g. USFWS, State Game and Fish Agencies, and other agencies with similar mandates.
 - Land management
 - Regulatory
- Representatives of existing partnerships
- Geographic divisions by the 3 deserts and Mexico?
 - If we create eco-regional separation, boundaries will change every couple decades.
 - Gathering information on science can be done over the whole area, but implementing makes more sense at smaller scales.
 - The LCC is serving to provide science, direction, concepts, ideas, but implementation really can only be done by agencies that have jurisdiction and authority; they would bring in stakeholders when management is happening.
- Tribes
- Community perspectives. There should be awareness in the Steering Committee so as different issues come up there is an ability to reach out to the community groups.
- The Committee should represent diverse interests.
- Many groups have land management missions as well as other missions; this needs to be recognized.
- Research community.
- CSC representative.
- Large private land managers and conservancies.
- Renewable energy development should be represented on the Steering Committee or in some other way, e.g., through a liaison role.
- The process needs to be transparent but doesn't need to involve everyone in every deliberative discussion.
- Pure scientists.
- How would FACA be involved?

- USBR: Federal Advisory Committee Act (FACA) and Federal Acquisitions Regulations (FAR) and the role they play are being discussed. Under FACA, the key question is whether the LCC is speaking as an entity to the federal partners or if individual organizations are giving individual information. For FAR, the questions are whether partner agencies can pool money to fund a proposal and if a Steering Committee member could apply for an RFP that it helped to write.
- The Anti-Deficiency Act is also at play.

Possible Subcommittees

- Education
 - Provide a meeting or symposium in which research results are shared. The meeting would include managers and public.
 - Forum for technology transfer from a variety of science initiatives.
- Funding
- Land users (forestry, mining, recreation, energy)
- Legal subcommittee
- Tribes
- Communities
- Water (to address Colorado River issues with the Southern Rockies LCC)
- Science
- Committee on how scientific recommendations will affect on-the-ground management in different agencies

Fears or Concerns

- Mission conflicts. If a T&E species is identified in your land management area, this info could be used to force a local government to act.
- Having to go to another meeting.
- It's not a multiple use forum.
- Litigation.
- Different applications by different states.
- Geographic scale of the LCC; concern that smaller scale initiatives will get lost when mixed in with other scales.
 - Make sure that one region's needs are not swamping out others.
- The science is huge and complex.
- Redundancy of different groups doing the same thing instead of cooperation.
- Information overload.
- It is challenging for a single agency to have one representative who can make decisions.
- Inflated expectations; managing expectations is key.
- Getting actual science on the ground done as opposed to building a new bureaucracy; this needs to add value to existing projects.
- Funding
 - Travel resources are limited.
 - There has to be enough money to support science activities for more than a season; there must be enough per project to actually do something.
 - Funding will get spread too thin.
 - Wise use of funding to address clearly defined questions.
- Lack of clarity in implementing science recommendations or applying them to what managers need to do.

- There needs to be a clearly articulated link between proposed science and management decisions.
- If the focus is limited to the science side; it's a function of the managers on the Steering Committee to focus the question so the right question is answered rather than something that is not used.
- Adequacy of funding from DOI.
- Ability to interpret the scientific output and also articulating research needs (input and output).
- Uncertainty of guidance from DOI.
- Longevity of the effort. A long term commitment is needed.

Who's missing?

- Tribes
- States (NV, UT, NM, CA)
- Mexico
- Public participation
 - Can the public use forums like Resource Advisory Councils?
- Industry: energy, water, agriculture, recreation
- Policy makers impacting actions on private lands
- Local government
- NGOs/Science Purveyors
 - South Coast Wildlands
 - PRBO, Spencer Group
 - TNC
 - NatureServe
- Salton Sea

Recap and Closing

- This is just the first step; there will be other opportunities for input.
- Contact Avra Morgan (aomorgan@usbr.gov) if you want to be involved in the scoping process for pulling together steering committee.

Recorder: Julie Shapiro, The Keystone Center

Appendix 1: Meeting participants – Desert LCC Scoping San Bernardino, CA, August 19, 2010

- Ilene Anderson (Center for Biological Diversity)
- Doug Barnum (USGS)
- Cameron Barrows (University of CA, Center for Conservation Biology)
- Jim Bartel (USFWS)
- Heidi Brannon (Solution Strategies, Inc)
- Dave Busch (USGS)
- Leslie Cleveland (USBR)
- Tom Coleman (USFS)
- Andrea Compton (NPS)
- Brian Croft (FWS)
- Fon Duke (DOD)
- Clarence Everly (US Army)
- Lorrie Flint (USGS)
- Steve Henry (FWS)
- Mike Huber (US Navy)
- Manuel Joia (US Marine Corps)
- Susan P. Jones (USGS)
- Rick Kearney (FWS)
- Maggie McCaffrey (USIECR)
- Chris McDonald (UC Cooperative Extension)
- Milan Mitrovich (Solution Strategies, Inc)
- Ed Moreno (The Keystone Center)
- Tom Mull (Edwards AFB)
- Tom Rademacher (Edwards AFB)
- Dave Raff (USBR)
- April Sall (Wildlands Conservancy)
- Chris Schoneman (FWS)
- Dennis Schramm (NPS)
- Russell Scofield (BLM)
- Gail Sevrens (CA State Parks)
- Julie Shapiro (The Keystone Center)
- Seth Shteir (National Parks Conservation Association)
- Alan Stein (BLM)
- Joe Stringer (USFS)
- Gil Stuart (BIA)
- Andrew Sylva (San Bernardino County Board of Supervisors)
- Amy Torres (FWS)
- Amy Vandergast (USGS)
- Jeanne Wade-Evans (USFS)
- Eric Weiss (CDFG)

Appendix 2: List of regional conservation partnerships identified by participants, Desert LCC Scoping Meeting, San Bernardino, CA, August 19, 2010

- Tribes
- User groups, energy, recreation, timber/cattlemen, mining
- MSHCP nearing completion for the Agua Caliente tribe in Coachella Valley
- DRECP – Desert Renewable Energy Conservation Plan (include the California portion of this)
Establish conservation guidelines to mitigate renewable energy
 - Stakeholder group formed under DRECP with ecosystem component
- Western Regional Partnership, WRP.
- Partnerships that may cross the major desert systems or state lines.
- Southwest Strategy (AZ, NM) **No longer in existence
- Field Coordinating Committee (DOI Committee, NM, TX, AZ, CA, sister agencies in Mexico)
Sonoran Desert Joint Venture
- Desert Tortoise Management Oversight Group
- Morongo Basin Open Space Group
- Salton Sea
- Imperial Irrigation District Habitat Conservation Plan
- Native American Lands Conservancy (multistate- CA, AZ)
- Desert Fish Habitat Partnership
- Multispecies plans around San Diego and San Diego County
- Low Desert Weed Management Area
- Mojave Weed Management Area
- Western Riverside County MSHCP (outside the boundary of the LCC)
- Quad State Local Government Authority
- Western Governors Association
- Association of California Water Agencies
- Western Association of F & W Agencies

Appendix 3: Science needs identified by participants, Desert LCC Scoping Meeting, San Bernardino, CA, August 19, 2010

Water

- Impact of large utility-scale renewable energy development on regional water supplies
- Predictive modeling to identify potential locations and magnitudes for changes in spring outflows that support important riparian, wetland systems.
- Hydrology of Amargosa River system CAN/NV (see above)
- Surface water maps across entire desert area.

Ecosystem

- Vegetation map
- Cover of soil appropriate cryptobiotic soils
- Impact of large utility-scale renewable energy development on ecosystems
- Overpasses and underpasses as a means of maintaining habitat connectivity.
- Infill of veg. map gaps in Mojave!
- Spatially distributed, fine scale (<1km) maps over time describing driving forces (stressors) for species (energy, water, deficits, temperature, etc.)
- Model interactions of climate change, invasive species and fragmentation (roads/cities)
- Habitat connectivity
- How climate change will affect invertebrates

Wildlife Populations

- Population viability based on shared data for sensitive species
- Identification of refugia and corridors for species during climate change
 - Not just rare T&E species
- Identify vulnerable species of limited distribution that could be catastrophically impacted by climate change
- Population impacts due to declining freshwater supplies/or increased salinization of FW wetlands – potential loss of terminal lakes induced by temperature increase
- Identify unique (genetic population to ensure their traits are retained throughout climate change)

Wildlife Habitat

- Which species are most vulnerable to climate change
- Responses of ecosystems to precipitation variability
- Models of habitat shifts in response to climate change
- Identification of movement/connectivity corridors at umbrella species levels
- Future conditions (water deficit, temp) at fine scale to identify places that will change the most or provide refugia
- Species distribution modeling at fine spatial scale
- Changes/movement of wildlife species and populations due to increased fire and decreased habitat with climate change

Human Environment

- Most effective measures to involve/motivate general public to action
- Air quality and receding Salton Sea levels
- Information on future trends/direction in agriculture, timber, energy, mining, ranching

Threats

- Invasive species - how will they increase/decrease/change distribution with climate change and how to address
- Habitat fragmentation-identifying connectivity needs now and in future with climate change
- Fire
- Large-scale solar power, transmission lines
- Urbanization
- Large utility scale renewable energy development
- Salinization of lands/run off/wetlands
- Future development projections
- Off-road vehicles
- Cessation of fire regime
- Border fence construction

Decision Support Tools

- Thresholds for management actions
- Involve county planning agencies – train, collaborate
- Species specific population viability models
- Physiological models of species at risk and mitigation strategies
- Modeling of “keystone” species in communities and their movement in response to climate change

Monitoring Needs

- Comprehensive rangewide monitoring of population size, distribution, and trends for T&E species (desert tortoise, MGS, etc.)
- Spatially distributed maps of how environmental conditions have changed over the last decade or so, at <1km resolution, to facilitate where things are changing and not changing to capture ranges for long term monitoring
- Standardized monitoring across LCC for vulnerable populations
- Phenology monitoring
- Use hypothesis-based (science) monitoring questions and approaches – not just counts but data that allows an understanding of the variables that constrain species distributions
- Accurate (spatially) presence data for desert species

Needs for Infrastructure/Training

- Research about the best way to explain climate change’s effects on natural resources to the public
- Warehouse for science (reports/publications)

Soils

- Seamless soil type/texture etc. mapping across desert at fine spatial scale (<1km)
- Role of cryptobiotic soils in C-2 storage
- Soil changes and stability concerns with increased precipitation levels