### DESERT LANDSCAPE CONSERVATION COOPERATIVE

Climate-Smart Landscape Conservation Planning & Design Ecosystem Conservation Working Table, Trilateral Committee for Wildlife and Ecosystem Conservation and Management

#### April 2015





STEERING COMMITTEE



DESERT LANDSCAPE CONSERVATION COOPERATIVE

#### LANDSCAPE Desert LCC Mission & Goals COOPERATIVE

#### Mission

DESERT

Through collaborative partnerships 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.

#### Goals

- Support, facilitate, promote and add value to landscape scale conservation to build resource resilience in the face of climate change and other ecosystem stressors through the following:
  - Science Development and Delivery
  - Collaboration and Communication
  - Monitoring and Evaluation
  - Outreach and Education



### CREATING A SUSTAINABLE FUTURE

"Collaborative conservation is the process of creating a sustainable future for peoples and places by inviting diverse and inclusive groups of stakeholders to jointly solve problems through collective learning and action."

Reid et al., Collaborative conservation in practice: Current state and future directions.



LANDSCAPE CONSERVATION COOPERATIVE

## Making Collaboration Work

Lessons from Innovation in Natural Resource Management Julia M. Wondolleck and Steven L. Yaffee, 2000

- 1. Build on common ground established by a sense of place or community, mutual goals or fears, or a shared vision
- 2. Create new opportunities for interaction among diverse groups

- 3. Employ meaningful, effective, and enduring **collaborative processes**
- 4. Focus on the problem in a new and different way by fostering a more **open**, **flexible**, **and holistic mind-set**
- 5. Foster a sense of **responsibility**, ownership & commitment
- 6. Recognize that partnerships are made up of **people not institutions**
- 7. Move forward through **proactive and entrepreneurial behavior**
- 8. Mobilize support and resources from numerous sources



Focal Ecosystems

- Rivers/Streams, aquatic and riparian
- Springs, aquatic and riparian
- Grassland/Shrubland Ecosystems
- Species vulnerable
  to climate change





ANDSCAPE GENERAL ADAPTATION STRATEGIES

- Reduce non-climate stressors
- Protect key ecosystem features
- Ensure connectivity
- Restore structure and function
- Support evolutionary potential
- Protect refugia
- Relocate organisms
- Ensure redundancy



### ENHANCING ADAPTIVE CAPACITY



DESERT

10

LANDSCAPE CONSERVATION COOPERATIVE

> Adapted from: Adapting Urban Water Systems to Climate Change, A handbook for decision makers at the local level. SWITCH Training Kit. 2011.

"Whole system management is often more effective than focusing on one species at a time, and can help reduce the harm to wildlife, natural assets, and human well-being that climate disruption might cause." Third National Climate Assessment



A watershed approach will lend itself to stewardship, emphasizing ecological sustainability as a basis for biodiversity conservation and human well-being.



## LANDSCAPE CONSERVATION PLANNING & DESIGN



- A process [to design] and a product [a design] that achieves partners' missions, mandates & goals while ensuring sustainability of ecosystem services.
- An integrated, collaborative, and holistic process grounded in the interdisciplinary science of landscape ecology, the science of conservation biology & the art of design results in:
  - A spatially-explicit product that identifies targets of interest to partners and articulates measurable objectives for those targets;
  - Assessment of current and projected landscape patterns and processes; and
  - Identification a desired future condition, conservation/development trade-offs, and implementation strategies.
- Strategies derived from landscape conservation design can meet societal values and needs while maintaining ecological integrity & biodiversity.

### CLIMATE-SMART LANDSCAPE CONSERVATION PLANNING & DESIGN

FUNDING (FWS, BLM)

- □ PLANNING (2014-2015):
  - Determine design elements, including priority resources
  - Map priority ecosystems, resources, species & assess their current condition
  - Create scenarios of future landscape condition, including climate projections
  - Develop plans for 2-3 pilot landscape conservation designs
- DESIGN (2016-2017):
  - Identify climate change adaptation strategies, critical conservation actions, and opportunities for collaboration

#### GOALS, OBJECTIVES, DESERT \_ANDSCAPE **INDICATORS & TARGETS** CONSERVATION COOPERATIVE 14 Individual Partner Goals Desert LCC Goal for Priority Resource (broad, contribute to overall LCC (broad, overarching goal) goal) Desert LCC Objectives Partner Objectives (compilation of partner (more specific, contribute objectives) to partner goals) Targets Specific Indicators (measurable (partners' metrics related to ecosystem endpoints for function or services and species) indicators)

## MEASURING PROGRESS TOWARD CONSERVATION GOALS



DESERT LANDSCAPE

CONSERVATION COOPERATIVE

## CONSERVATION PLANNING ATLAS



DESERT

LANDSCAPE CONSERVATION COOPERATIVE

## Trans-boundary Collaboration meeting Aguascalientes, Mexico, July 2014



Priorities for advancing binational collaboration:

- □ Getting the right people to the table
- Overcoming barriers to communication
- Data sharing

DESERT ANDSCAPE







Mexico's Climate Change General Law

DESERT

- Inter-ministerial Commission on Climate Change National Climate Change Strategy
- Instituto Nacional de Ecología y Cambio Climático









ESTRATEGIA NACIONAL DE CAMBIO CLIMÁTICO visión 10-20-40

GOBIERNO DE LA REPÚBLICA

- Mexico's National Climate Change Strategy
  - Area: Ecosystems

19

- Pillars: Adaptation to Climate Change
  - P1: Crosscutting, articulated, coordinated and inclusive climate actions
  - P3: Implement a platform for research, innovation...and strengthening of institutional capacities
  - P5: Implement mechanisms for measurement, reporting, and verification and monitoring and evaluation
  - P6: Strengthen strategic cooperation and international leadership
- Vulnerability Assessments
  - A3: Conserve and use ecosystems sustainably and maintain the ecosystem services they provide
- Prioritization of Adaptation Measures
  - Criteria

WE WANT YOUR INPUT



- □ We will compile information in our Conservation Planning Atlas, including:
  - Baseline condition assessments or inventories
  - On-going or completed conservation actions: who is doing what where?
  - Existing objectives, indicators (e.g., species, ecosystem processes or services), and targets
  - ID greatest pressures and stressors for each ecosystem type
  - Prioritize pilot geographies for planning and design
  - Assess vulnerability of conservation priorities in focal areas
  - Create scenarios of future landscape condition, including climate projections
  - Prepare plans for 2-3 pilot landscape conservation designs
    - ID critical conservation actions and develop adaptation strategies
    - ID opportunities to collaborate and leverage resources for collective impact

SCAPE

### PLEASE JOIN US

- Landscape Conservation Planning and Design Workshops
  - Tucson, Arizona: August 4-6, 2015
  - Aguascalientes, Mexico: October 6-8, 2015
- Other Desert LCC meetings
  - Steering Committee
    - May 20-21, 2015; Boulder City, Nevada
    - November 17-19; location to be determined
  - Working Groups and Teams:
    - September 22-24, 2015; location to be determined
- □ Coming in 2016:
  - Rio Grande Basin Binational Conservation Forum

LANDSCAPE CONSERVATION COOPERATIVE





#### DESERT LANDSCAPE CONSERVATION COOPERATIVE

# **THANK YOU!**

Genevieve Johnson, DLCC Coordinator Bureau of Reclamation gjohnson@usbr.gov

Aimee Roberson, DLCC Science Coordinator Fish and Wildlife Service aimee\_roberson@fws.gov

Sally Holl, DLCC Data Coordinator U.S. Geological Survey sholl@usgs.gov

Website: www.usbr.gov/desertlcc YouTube: www.youtube.com/user/DesertLCC Facebook: www.facebook.com/desertlcc