



April 17, 2023

Dear Ms. Stewart,

On behalf of Cuenca Los Ojos (Cuenca), I am submitting our application to join the Southwest Desert CESU to join as a new nonfederal partner organization. In a previous life, I served as the director of the Gulf Coast CESU, which I thoroughly enjoyed and learned much from that role. Now I find myself on the other side of the equation working for and advocating for the submission of a conservation nonprofit to the CESU ranks.

I can confirm that Cuenca has read the CESU multi-partner agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement. Further, we are applying for the entire institution enrollment level.

1. Description of the institution/organization, its mission, and the primary focus of collaborative activities to be supported through the CESU in the context of the CESU mission.

Cuenca is a U.S. non-profit that works with its Mexican counterpart, Cuenca de Los Ojos A.C. (civil association), to manage the restoration work on its 121,000-acre protected preserve in the Sky Islands of Sonora, Mexico where it shares a 30-mile border with the U.S. Our collective mission is to protect, restore, and rewild the biodiversity of the U.S.-Mexico borderlands. One of the main methods used to accomplish this mission is through watershed restoration of ciénegas, riparian areas, and aquatic habitat restoration using erosion control structures and other natural processes to slow water down from running through and off a landscape.

Our other work in Mexico involves the management of a 50,000-acre preserve known as Rancho El Uno in Janos, Chihuahua, Mexico that focuses on the Chihuahuan Desert grassland restoration, as well as the management of a herd of 300 bison.

In addition to our Mexico conservation, restoration, and protection work, Cuenca works with U.S. state, federal, and regional partners to achieve its mission through bi-national work to restore and protect the borderlands. In reviewing your partner page, Cuenca is working with or has worked with Northern Arizona University, University of Arizona, Arizona Game and Fish Department, Bird Conservancy of the Rockies, Sky Island Alliance, Arizona – TNC, and the bulk of your federal partners.

The primary focus of collaborative activities to be supported through the CESU is the ability for Cuenca to share its expertise of watershed management and restoration using erosion control structures on a landscape scale.

2. Description or list of the primary programs, departments, or other institutional units of relevance to federal land management, environmental, and research agencies that will likely be engaged in CESU activities. Include website addresses for further information, as appropriate.

Cuenca's three main programmatic focus areas are water, soil, and life. We view our work as literally building from the ground up by starting with the main ingredient of water. The goal with our water management program is very simply stated as *slow the water down*. Desert water tends to come fast and hard and we want it to stay on the land as long as possible. We do that by slowing it down through a variety of erosion control structures strategically placed throughout watersheds and riparian areas to reduce the water's energy. In doing so, we give the land an opportunity to soak the water into the soil and help with ground water recharge. This also helps reduce and reverse erosion. Slower water has less energy to cut banks, dislodge soil, and move rocks. At the same time, in areas where water does flow fast, our erosion control structures diffuse the water's energy causing it to deposit its sediment load behind these structures, which in effect begins the process of reversing erosion and restoring natural drainage and riparian health.

With respect to soil health, our objective is *no bare ground*. For us bare ground indicates a lack of diversity in grass, plants, trees, and soil microorganism populations. Thus, we work to reduce bare ground throughout the various ecosystems we manage from open desert grasslands all the way to pine-covered mountains. We accomplish this through a variety of techniques that include, but are not limited to, regenerative grazing, key-line plowing, native seed harvesting and planting, and prescribed fire. All of these activities serve to stimulate grass and plant growth without overusing the resource. Regenerative grazing stimulates plant growth by applying the right consumption pressure on the resource, depositing urine and manure, and then letting areas rest for over a year and half before they are stimulated again. It's the rest that is key. The key-line technique works with the land's contours to open the soil in a specific pattern to allow water to infiltrate the soil which supports plant life as well as the micro soil organisms that breakdown organic matter. Native seed harvesting and planting enables us to replant areas that need a restoration jump start by ensuring that native species which are adapted to the region, have a chance at reestablishing themselves. Lastly, we use fire to stimulate plant growth and diversity. The benefits of fire are well known, but we employ it not only for the benefit of the plant species, but also to avoid what we term a catastrophic fire event. When dead biofuel builds up over time it poses a severe risk to an entire ecosystem and habitat structure that if not addressed, could be catastrophic. Thus, we strategically burn areas that are not grazed at specific times of the year to reduce fuel loads and stimulate plant growth all for the purpose of improving soil health. The regeneration from these prescribed fires adds organic matter to the soil and accelerates the recovery and regrowth of the treated areas.

The last prong is life. Our objective here is that *if we protect it, they will come*. The protect part involves the permanent protection of a large, in-tact habitat space. Then, with the two foundational components of water and soil addressed, we believe the third occurs on its own. The flora and fauna biodiversity begins to repopulate the landscape, rebalance the food chain, and restore the overall environmental health of the region. The importance of looking at large, unfragmented landscapes is critical to this step and is something federal land managers must grapple with.

We believe these three building blocks are key components of land management practices amongst the CESU partners; however, our contribution goal to the CESU is to be able to share over 30 years of consistent on-the-ground results of implementing these practices without the challenges of political agendas, different budget priorities, staffing shortages, etc. Our goal is to share our lessons learned with all CESU partners to better address the climate challenges facing the desert southwest ecosystems.

That leads us to the initial reason for this application, to help facilitate a developing relationship with the Department of Defense on the use of erosion control structures to mitigate flood damage, restore habitat, stop erosion, and accomplish their training mission on various installations. While this initial project focuses on one installation as a trial phase, the project has potential to expand to other installations and other branches of service.

3. A list of and brief description of the staff or faculty with expertise in disciplines and subject matter areas of relevance to federal land management, environmental, and research agencies (do not submit CVs):

Oscar E. López Bujanda: Field Ecologist. Oscar oversees all biological-ecological of projects conducted on Cuenca's preserve. He has a B.A. in Ecology and M.A. in science.

José Manuel Pérez Cantú: Conservation Director. Jose Manuel is responsible for planning and implementing Cuenca's land management and restoration strategy. He has an Animal Science degree and has extensive experience managing ranches and preserves throughout Mexico to include the implementation of erosion control structures.

Jeremiah H. Leibowitz: Executive Director. Jeremiah oversees both the U.S. and Mexican organizations' finances, operations, and strategic direction. A former agricultural real estate and conservation lawyer, he has vast experience with land conservation and management transactions, policy, and outreach.

Nancy Hernandez Rodriguez: Manager, Rancho El Uno. Nancy is responsible for the operations, maintenance, and strategic direction of the El Uno preserve. She has a M.A. degree in Resource Management and has 19-years' experience in grasslands conservation and management.

Elizabeth Valdovinos: Administrative Coordinator. Elizabeth organizes back-office information, manages communications and the donor/accounting database, oversees website maintenance, facilitates grant management, and provides general support to the executive director and conservation director. She has a M.A. degree and is skilled in organization and data management.

4. Description or list of facilities, equipment, centers, or institutes that would provide support to the research, technical assistance, or educational activities of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

The primary form of support Cuenca will provide in this initial engagement with the DoD is technical support in a project consultant capacity. We will conduct field site visits, attend project planning sessions, recommend restoration options, advise on the engineering and implementation of a course of action, and supervise the implementation of the project activity. Thus, the contribution will come from Cuenca's staff and experience of having installed erosion control structures across large landscapes and watersheds. We will advise the DoD on how to implement similar structures across the various project areas.

In addition, our current, collaborative, and practical work with other Desert Southwest CESU partners such as the U.S. Forest Service, the U.S. Fish and Wildlife Service, Northern Arizona University, University of

Arizona, Arizona Game and Fish Department, Bird Conservancy of the Rockies, and Sky Island Alliance spans the spectrum of research, technical assistance, and educational activities important to the various agencies engaged in CESU activities.

5. Description or list of past research, technical assistance, and educational services supported through federal financial assistance awards that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

Type	Project start date	Project Name	Grantee Organization	Location	Award \$
NAWCA	2001	RESTORATION OF CIENEGA DE SAN BERNARDINO	FUNDACION DE REFUGIO DE SAN BERNARDINO A.C.	MX	\$304,000
NAWCA	2002	RESTORATION OF CIENEGA DE SAN BERNARDINO WATERSHED, PHASE II	FUNDACION ECOLOGIA SAN BERNARDINO A.C.	MX	\$369,574
NMBCA	2006	RIO SAN BERNARDINO WETLANDS RESTORATION & PROTECTION	CUENCA LOS OJOS A.C.	MX	\$100,000
NMBCA	2009	SAN BERNARDINO NEOTROPICAL MIGRATORY BIRD HABITAT RESTORATION PROJECT	CUENCA LOS OJOS A.C.	MX	\$250,000
MX Intl	2009	STEWARDSHIP AND OUTREACH PROJECT IN THE SAN BERNARDINO REGION OF NORTHERN MEXICO	CUENCA LOS OJOS FOUNDATION	MX	\$30,000
NMBCA	2012	San Bernardino Neotropical Migratory Bird Habitat Restoration, Phase II	CUENCA LOS OJOS FOUNDATION	US,MX	\$200,000
NMBCA	2014	San Bernardino Neotropical Migratory Bird Habitat Restoration III	CUENCA LOS OJOS FOUNDATION	US,MX	\$200,000
NMBCA	2015	SAN BERNARDINO NEOTROPICAL MIG BIRD HABITAT RESTORATION IV	CUENCA LOS OJOS FOUNDATION	US,MX	\$200,000

6. Description or list of current formal agreements and informal relationships with federal agencies that are of relevance to federal land management, environmental, and research agencies that will be engaged in CESU activities.

Regarding formal and informal agreements with other federal agencies, we have recently worked with the U.S. Forest Service's International Program office for a project titled "Managing Grasslands in the Janos Biosphere Reserve Region for Biodiversity and People", and we are reestablishing our relationship with the U.S. Fish and Wildlife Service's Latin America Regional Program for work affecting prairie dog and bison habitat protection and species reintroduction in Sonora. While these projects are focused in Sonora, it is important to recognize that our work represents the missing link that U.S. federal land management agencies working in the borderlands need in order to implement their management objectives in the U.S. Animals and plants do not recognize a political boundary, they recognize habitat range boundaries and thus, our work in Mexico is critical to ensuring that U.S. land management objectives are realized across a natural landscape as opposed to a political landscape.

Specific to this application, we are focused on helping DoD, Department of the Navy implement climate resiliency projects on their installations. Below is an outline of the proposed work:

(1) MCAS Yuma Stone structures project (from ERDC project overview fall 2022 brief on proposed project):

- Proposed location: Watershed in Chocolate Mts, “Jbox” (w/UXO)
 - Favorable watershed characteristics? (i.e., start high, work down)
- Check Dam/Stone Structure/Gabion Installation
 - USGS draft preliminary model to identify optimal structure placement. Installation of stream gauge monitoring/discharge, develop high resolution models for placement, work with Yuma to install structures.

(2) Natural Hazard induced Threats/Challenges this project aims to address:

- Primary: Mitigating the clean-up costs and potential hazards resulting from UXO up costs and potential hazards resulting from UXO dispersal because of less frequent, but more intense precipitation dispersal because of less frequent, but more intense precipitation events due to climate change events.
- Secondary – slow water down: Increasing wildlife water sources and forage plots. Increasing number and capacity of wildlife water sources and forage plots to reduce water hauling operations by state wildlife agencies and to reduce water hauling operations by state wildlife agencies and volunteer groups volunteer groups.

(3) High-level Dept of the Navy Climate Strategy that establishes Natural Infrastructure/Nature-Based Resilience Focus Area

- Link to [DON Climate Action 2030](#)
- One-pager attached (highlights Resilient natural infrastructure/focus on NBS)

(4) Dr. Laura Norman’s publication on natural infrastructure for dryland streams and climate resilience

- <https://doi.org/10.1016/j.scitotenv.2022.157738>

7. Confirmation of the institution’s/organization’s willingness to accept the CESU programmatic indirect cost (IDC) rate and cost items to which this rate is applicable for activities conducted through the CESU, including research, technical assistance, and educational activities (this IDC rate applies to the entire institution/organization for CESU activities).

Cuenca confirms that is will accept the CESU programmatic indirect cost (IDC) rate.

8. Designation of a technical representative (with full contact information – name, title, full address, phone, fax, email) to serve on the CESU Executive Committee, participate in CESU annual/semi-annual partner meetings, and facilitate internal and external communication, promotion, and

response to CESU correspondence and administrative actions (e.g., announcements, new partner applications, processing agreements/amendments, five-year reviews, periodic reporting).

Jeremiah H. Leibowitz, Executive Director

342 Sharon Dr. E

Boerne, Texas 78006

Mobile: 210-313-7117

jeremiah@cuencalosojos.org

9. **Designation of an administrative or grants and agreements representative (with full contact information – name, title, full address, phone, fax, email) to serve as financial assistance point of contact.**

Elizabeth Valdovinos, Administrative Coordinator

1173 2nd Ave.

Sacramento, CA 95818

Mobile: 916-833-1860

evaldovinos@cuencalosojos.org

Alexandria Hawkins, Finance Manager, Borderlands Restoration Network

P.O. Box 121

Patagonia, AZ 85624

520-604-0224

ahawkins@borderlandsrestoration.org

10. **Agreement to relay agency-specific research, technical assistance, and educational needs and associated funding opportunities to other institutional/organizational members (e.g., faculty, students, staff).**

Cuenca agrees to relay agency-specific research, technical assistance, and educational needs and associated funding opportunities to other institutional/organizational members (e.g., faculty, students, staff).

Thank you for the review and consideration of our Desert Southwest CESU application. Enclosed is a letter of support from the USFWS outlining past collaborations. Please do not hesitate to contact me with additional questions.

In Cadence,



Jeremiah H. Leibowitz
Executive Director

Encl 1 – Letter of Support from U.S. Fish and Wildlife Service



United States Department of the Interior

Fish and Wildlife Service
Arizona Ecological Services Office
9828 North 31st Avenue, Suite C3
Phoenix, Arizona 85051

Telephone: (602) 242-0210 Fax: (602) 242-2513



March 7, 2023

Ashley Stewart, Program Coordinator
Desert Southwest Cooperative Ecosystem Studies Unit
1064 E. Lowell Street Room N327
Tucson, Arizona, 85721

Dear Ashley Stewart:

I am writing to express support for the non-profit organization, Cuenca Los Ojos, to join the Desert Southwest CESU as a partner to participate in conservation activities and projects. The U.S. Fish and Wildlife Service (Service) and Cuenca Los Ojos are long-term conservation partners with aligned objectives for rare, special concern, and listed species and ecosystems of the borderlands between the United States (Arizona and New Mexico) and Mexico (Chihuahua and Sonora). In the past, Cuenca Los Ojos has received funding from the North American Wetlands Conservation Act and Neotropical Migratory Bird Conservation Act programs to enact conservation project in both the United States and Mexico. Specifically, Cuenca Los Ojos used funding from the Service for activities related to restoration of the San Bernardino Ciénega and associated watershed. Further, on its land in Mexico, Cuenca Los Ojos hosts populations of species that are extirpated or nearly extirpated from the United States and works with the Service to assist in monitoring and conservation activities for these populations. The relationship between the Service and Cuenca Los Ojos allows for bi-national conservation efforts that otherwise might not exist.

Given this close relationship, the Service is supportive of Cuenca Los Ojos requesting to join the Desert Southwest CESU. Further, the Service sees the benefit of this collaboration and the importance of the continued work described above in furtherance of the USFWS's mission: to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. If you require further assistance or have any questions, please contact Cassandra Walker (cassandra_walker@fws.gov) or Julie McIntyre (julie_mcintyre@fws.gov).

Sincerely,

Julie
McIntyre for

Digitally signed by
Julie McIntyre for
Date: 2023.03.07
12:11:50 -07'00'

Heather Whitlaw
Field Supervisor